CLINIC NOTES
20th ANNUAL MEETING
NCTCA ☆ ☆ ☆ ☆

June 1949 - University of Southern California

Combined with
Clinic Notes
Second Annual
Winter Meeting
San Francisco
January 1949

NATIONAL COLLEGIATE TRACK COACHES ASSOCIATION ☆

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THE NATIONAL COLLEGIATE TRACK COACHES ASSOCIATION

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PART I

At a special Winter meeting of the NCTCA held in January, 1949 at San Francisco in connection with the National Collegiate Athletic Association meetings a program of topics was presented to the members in attendance. Part I comprises a report of those presentations.

PUBLICITY ---- TRACK AND RELAY MEETS

M. E. (Dill) Easton
Track Coach, University of Kansas

In leading a discussion on Publicity -- Track and Relay Meets -- there are a number of factors that must be considered. One of these is location; another the talent that will be avilable, as well as the many factors of publicity. It is my belief that we have done a far better job in publicizing our relays carnivals than we have done publicizing our dual track meets. The West Coast has done an especially fine job in publicizing outdoor dual track meets where the papers and radio stations of the host school invariably sets up the entire track meet, event by event, in which each individual is placed according to the best time, height or distance he has made, this mark being indicated and the final score is tabulated. This, of course, brings pressure upon the coach as well as upon the individual boy. But in emphasizing the close competition that will be taking place at this meet and bringing up three or four of these particular duals, the public is attracted to the meet.

Here are the steps we take to place our Kansas Relay Carnival before the public, as well as the factors that are considered prior to each of our dual meets at home and away, and our Conference meet competition. The Kansas Relays are always held the third weekend in April on Memorial Stadium track in Lawrence, Kansas. We are fortunate in being located in a population center of approximately a million and a half people within a 100 mile radius. At every opportunity our publicity man mentions the Kansas Relays, and where it is apropos, the exact date that it will be held. It is extremely important that a meet such as the Kansas Relays be kept before the public at all times. Our athletic staff in their discussions and speeches before service clubs, alumni, and high school groups invariably mention the Kansas Relays. We feel any mention of our meet is a boost.

Promoting track is a year-round job as you can see by the above mentioned facts. On the first of December we start in motion our set program of promotion. At this time we mail to each of the track coaches of the United States an announcement card giving the exact day and date of our relays. This is done so they will have this information prior to the conference meetings that take place the first weekend in December. This is followed by Christmas and New Years greeting card to all those coaches who have been in attendance at our relay meet over the past few years.

On March 1st the preliminary booklet outlining the meet, order and time of events, awards, is mailed out to the coaches. This booklet gives full particulars on every phase of the carnival. We also enclose a return postal card for each coach to check stating whether he will or will not be in attendance. If the card is returned to our office stating that he will not be with us it is placed in a seperate file for future reference; but if he is going to bring his team to the meet this information is turned over to our Student Relays Chairman, as well as to our publicity man.

The University of Kansas Student Relays Committee is unique in that it is the only one of its kind, to my knowledge, in the United States. These boys are top students scholastically and must indicate their interest before being appointed to this committee. They serve without remuneration and it was only last year that we awarded them a Kansas Relay medal, and a watch to the Chairman of the group. Each boy is assigned a particular part of the program to carry out and the job has been done extremely well each year by these boys.

About April 10 to 13, approximately ten days before the meet, full data is sent out to each of those schools that have indicated their intentions to be with us. This includes entry blanks, information on hotel accomodations, time of drawings, and social events that will take place.

Our publicity director also mails out a letter to the coach and the publicity director of the competing schools, requesting stories on their track team with glossy prints and skits on outstanding individual performers. When this information is received complete releases are written for the newspapers and the radio, as well as for all of the wire services. This is a set procedure and unless something startling occurs, runs in routine fashion. If we are attending another relay meet out publicity director writes regular releases on our teams chances and chances of certain individuals, stressing their recent performances; the competitors, either team or individual, they will meet, as well as releases for general use plus a picture of some star who has a good chance of top performance in the meet. He invariably sends at least one feature story with a picture to the publicity director of the host school or to some paper in the area of the meet. He also volunteers his services to the publicity director of the host school.

In our dual competition our publicity office sends out pictures for general use or places them with newspapers in the immediate vicinity that cover our meet best. A comprehensive story setting up the meet event by event and by individual performances with the meet doped out is also written. He often writes feature stories slanted toward a particular meet for general release.

Prior to both of our conference indoor and outdoor meets the following procedure is followed. One good picture is always released for general use. This is sent to a paper at the meet site with two or three extra shots. General stories are also written on two or three men of our school on their possibilities in the meet and finally a comprehensive meet roundup emphasizing chances of our team, actually doping the finish and discussing merits of opposing conference indididuals and clubs. It is imperative that glossy prints and stories from each of the teams be sent for releases to newspapers, radios and magazines. These articles need authentic and attractive pictures to emphasize the story. It is a "must" to get good newspaper publicity, as well as radio assistance in putting your meet across to the public. We have made a definite effort to publicize our meet through another medium, that of direct mail advertising for ticket sales. We mail out letters to all purchasers of football and basketball tickets, giving them the first "privilege" of buying reserved seat tickets to our meet. We enclose in this letter a plan showing the layout of the stadium indicating where each of the events start and finish and where each of the field events will be held. We also write a form letter stating the names of outstanding athletes who will be competing in the meet with the ticket prices urging them to enclose the return card with ehck for ticket purchases. We have received a very favorable response to this direct mail publicity and believe it will show better results each succeeding year.

Relay posters are also made and mailed out to all high schools, colleges, and YMCA's, within a radius of 100 miles of Lawrence. These same posters are placed on all campus bulletin boards, as well as in all downtown business houses.

Kansas Relay stickers are delivered to each of the sorority and fraternity houses. These are placed on cars, bulletin boards, and enclosed in all letters to our friends throughout the state. All stationery used through the publicity and track athletic offices during the months prior to April contain you Kansas Relays dates. This past year we have had an opportunity to go even farther with our publicity during the off season. It was our good fortune to take 1500 feet of the 1948 Kansas Relays in color. We show this film throughout the state of Kansas during the winter months to high school, alumni and civic organizations. It is also mailed to out-of-state alumni groups who ask for it. It is one of our finest means of publicity, as it not only includes the downtown parade of floats, but also the world record shot put performance of Charles Fonville, University of Michigan, 58'3"; and the world record hurdle performance of :13.6 by Harrison Dillard of Baldwin Wallace College. It

shows, also, many other features of the university and college events including the high school mile relay winners, presentation of the awards to winners in the Glenn Cunningham mile, the Decathlon championship, and the Outstanding Athlete.

Our student Relays Committee has had excellent cooperation from both our fraternity and sorority groups. We have urged them to make this a spring "Homecoming" and to invite their alumni and rushees in for this fine athletic event. Each of them have also cooperated by placing a beautiful float in our downtown parade that takes place on Saturday morning of the relays. This has been a very attractive part of our relays and last year it was estimated that more than 15,000 people saw the parade down Massachusetts Avenue. Cups are presented through the courtesy of the Downtown Businessmen to the first three places in both the sorority and fraternity sections.

We follow this parade with a PA sound truck ballyhooing the outstanding men who will be performing in the afternoon, time of opening ceremony and some of the results that have already taken place in the preliminaries.

I would like to emphasize the importance of newspaper and radio publicity. The newspapers throughout the state of Kansas, as well as papers in all of our neighboring large cities, have been extremely kind to us in carrying the pre-meet dope, and follow with complete coverage of our Kansas Relays. Good newspaper and radio publicity is an absolute MUST. Local radio stations will carry our relays again this spring and it is our hope that we will be able to air the performances nationwide over one of the large networks. This, I feel, is one of the finest things that we can do for the American athletic public.

Thank you very much for the honor and privilege of speaking before the group. We all realize that the Olympic games are personified by the track and field events. The fine showing of our United States teams under Dean Cromwell, Emil Von Elling, and Ward Haylett speaks highly for the American athlete and the untiring work of the track coaches of the United States.

A BRIEF REPORT ON HIGH HURDLING TECHNIQUES

TAUGHT AT THE ARIZONA STATE COLLEGE--TEMPE

BY

DONN KINZLE

Track Coach, Arizona State College

Textbooks have been written, lectures given, and demonstrations beautifully executed on every phase of track and field athletics--and on hurdling in particular. This article is not an appempt to establish any criteria for the proper execution of hurdling technique and is based only upon the methods used at the Arizona State College at Tempe. After observing many of our great national stars in action over a period of the last fifteen years, it becomes increasingly apparent that no standard form or technique can be universally adopted by all hurdlers as a formula for success.

We have found that many factors other than form make up the over-all picture. They are what we call the five basic requirements and are listed as follows: Number one--agility (a loose hip), Number two--balance, Number three--relaxation, Number four--a resolute spirit, and Number five--at least average speed. We don't like to mention height as being an essential factor since visions of Alan Tolmich are a continual reminder that the above five requisites are more important than height (midgets excluded).

Once the hurdler is rounded into condition by two or three weeks of exercises, cardio-respiratory conditioning, and possess further a knowledge of the basic rudiments of hurdling mechanics, we begin at the beginning with the sprint start.

Approach To The Hurdle

The standard sprint start is used. However, emphasis is placed upon keeping the neck perfectly straight in the set position with absolutely no bend. The hurdler does not look up at the hurdle. This is done to eliminate any possibility of tension in the shoulders or arms or lower back. The standard seven or eight steps is employed and here great emphasis is placed upon a vigorous arm action. Most hurdlers, we feel, do not take time enough to utilize the power in the arms or shoulders. After the initial arm drive from the starting position, we ask the hurdler to modify the arc of his arm swing only slightly, and on the forward swing to come up to eye level and backward until the fingers just clear the buttocks. Naturally, a good lean must be maintained.

As the hurdler approaches the barrier, great attention is placed upon developing the ability to run "into" the hurdle without settling, getting set for the jump, or straighting of the upper body. Sometimes a white handkerchief tied around the hurdlers head is helpful in observing any possible hesitation or slackening of pace. A good vantage point for this is about fifteen yeards to the side.

As the hurdle is reached, an effort should be made by the athlete to lunge past the hurdle rather than leaping in an up and down motion. The lead arm assists materially in this effort in coordination with the upward and forward thrust of the lead leg. The trailing leg should be developed to provide impetus for this lunge with a last parting vigorous thrust as the hurdler leaves the ground. We ask the hurdler to think of the race in terms of being a horizontal affair, all in one straight line, rather than a series of runs and jumps. This is the point where the resolute spirit proves helpful. If the hurdler's step is right, if he has developed a near maximum momentum, if his lean is toward the hurdle, he is then in a perfect position to continue his straight forward effort by lunging with shoulders squarely

ahead, chest extended and head up, across and past the hurdle.

Across the Hurdle

At this point, after the drive is made, absolutely no attention is paid to the trailing leg. If it is hurried at all during this split second, the hurdler will detract from his driving effort and maneuver the body into a poor position for landing. We have found that at this stage of the effort, which places the athlete on top of the hurdle, approximately nine out of ten hurdlers commit the unforgivable sin--a hurried lead arm action. We work out hurdlers by the hour, attempting to develop a delayed lead arm action, one which stays forward, reaches forward and downward and only slightly to the rear as the trailing leg comes through. This, we feel, is the technique which will place the hurdler in an excellent sprinting position as he lands on the other side of the barrier. As to the short arm action, should the boy not have a particular preference or individuality of form which would indicate anything to the contrary, we attempt to develop the orthodox "arm at side" technique simulating the sprinting effort. We make one modification on this by having the hurdler turn the palm of the hand parallel to the ground which tends to limit the backward action of this arm or possible loss of control. It also snaps the arm up short in its backward motion and imparts a downward thrust to the upper body toward the ground. The action of the trailing leg, once it leaves the ground, should be a continuous motion without any hesitation or cocking on top of the hurdle. Once the foot leaves the ground, an almost perfect arc is made by the action of this trailing leg from its point of departure from the ground to its peak on top of the hurdle, to the ground on the other side. We observe the hurdler's knee closely as it crosses the barrier, and here attempt to keep the knee in a position never higher than the ankle was when crossing. Should the knee be higher, it indicates a body straightening and lost motion.

The Landing

As the hurdler mover toward the landing position, the lead leg is held in its slightly flexed position. The body maintains its forward lean without attempt to straighten until the ground is reached. The lead arm has come forward and moves downward and to the side. It is permitted to go backward to a position not more than six to eight inches behind the body. As the lead leg makes contact with the ground, the rear arm in its cocked position is perfectly poised for its vigorous thrust forward in a sprint action.

Actually, most of our efforts are spent upon getting the hurdler driving to the hurdle as quickly as possible and to take off with a vigorous thrust "into" the hurdle. We emphasize balance with a view toward landing on the other side of the barrier in a good sprinting position. The main goal is in building a terrific initial momentum, keeping it as the hurdle is crossed, and then not losing it as the landing is made on the other side of the hurdle.

Between The Hurdles

Between the hurdles, the arm action is vigorous. The arm action here should be every bit as strenuous if not more so, than that used by a sprinter in the middle of his race. We check the hurdler as his rear leg crosses the hurdle and reaches out for the first step. If it is a good normal stride, and he has landed in a balanced position, he is well on his way to the next hurdle. If he insists on landing in a twisted position, between-hurdle work is a lost effort, and emphasis should be placed on proper arm and leg balance in crossing the barrier so that a balanced landing results. The body lean between the hurdles must be that of the sprinter. Listing the points of between-hurdle technique which have given us a high degree of success, they are as follows: Number one: an on-balance landing; Number two: a good first step toward the hurdle; Number three: good body lean; Number four: exaggerated

sprint arm action; Number five: upper body relaxation in every phase of the effort; Number six: drive without inhibitions for the next hurdle.

The above techniques are those which we have used with a moderate degree of success. We believe a great deal depends upon the individual and what type of style and technique may best fit his individual build. There are naturally many primary and advanced points that have not been touched here. We only hope that our meager efforts may in some way be helpful.

THE POLE VAULT

Cornelius Warmerdam
Ass't. Track Coach, Fresno State College

Pole Vault Simplified

The Pole Vault, while a difficult event to learn or to teach, is not as difficult as it is sometimes made out to be. In this discussion we will try to stick to simple language in covering the main phases of the event.

Holding the Pole

One of the more important points to remember is that a wide hand grip makes the pole easier to carry since it distributes the weight over a greater distance. From 2½ to 3 feet is recommended depending on the size of the vaulter. The upper hand should anchor the pole firmly between the thumb and fore finger and this grip should not be changed or altered at any time during the vault. The other three fingers can be allowed to hold the pole rather loosely to aid in relaxation, of course, taken a tight grip at the plant.

The left hand should be rather loose on the pole with most of the weight of the pole being held again between the thumb and forefinger. By relaxing as much as possible on this hold, much tightness on the runway can be avoided.

The Approach

The methods of carrying the pole down the runway are generally divided into three different types of carry: high (above head): medium (head height): and parallel or low (parallel to ground). Of these, the parallel carry is recommended mainly because of the fact that the plant is greatly facilitated by this method. All the vaulter has to do is to let the pole drop the three feet into the box and this can be done on the last two strides whereas on the other carrys, the pole must begin to descent well back on the runway. The main reason a beginning vaulter likes to carry the pole higher than his head is that it is easier to carry that way - in some cases the vaulter does not have the strength to hold and keep it parallel. Just as much speed can be developed with this carry and it promotes a nice running angle.

Two check marks are necessary: the first not less than fifty feet from the box, (6-7 strides) and the other about 100 or thereabouts, A run of at least 110 feet is believed necessary to develop a long loose easy stride. Most vaulters in action today use from 112 to 150 feet. The vaulter should start back of the 110 foot mark, hit it picking up speed so that he has full speed as he passes the 50 foot check mark. The pressure is taken off the approach about three strides away from the box so that the vaulter can concentrate on the plant which is one of the hardest parts of the entire vault. The check marks should be hit with the takeoff foot in each case. The pole should be carried relatively steady: that is, not jabbed back and forth is coordination with the stride or leg action. This action must be done mostly by the shoulders but an exaggerated shoulder action is to be avoided.

Vaulters should come down the runway fast. Tests undertaken two years ago by the writer showed there was a definite relationship between speed on the runway and height achieved <u>especially</u> on heights which approached a vaulters best efforts. Some interesting conclusions drawn from this study were that a vaulter would have to run atleast 11.5 sec. for the 100 to make 14 feet. Of seven vaulters timed at successful 14 feet vaults, the slowest ran at a 11.1 sec. clip. On low heights speed becomes less important. Good training for vaulters to develop this necessary speed is lots of work with the sprinters and constant work throughout the season over the low hurdles.

The Shift and Plant

This should be a simultaneous movement. Yet, close study of motion pictures of top-flight vaulters reveals that many shift the hands some 4 - 3 strides away from the box and that there is no movement of the left hand when the pole is planted. This is definitely wrong. In order to get a smooth takeoff, the pole should be thrust forward with the right hand one stride away or when the right foot hits the ground. As the pole moves forward, the left should slide up letting the pole fall into the box. At all times during this movement, the pole should be kept in line with the run and not brought out to the side and then back to the center. The left hand must then regrip the pole as close to the right as possible - the takeoff foot would then be directly under the hands or slightly behind. Measurements indicate that the last two strides of the approach are from eight inches to 12 inches shorter than the others. Elbows, as the vaulter gets ready to leave the ground, are flexed to allow them to extend later on the swing thus helping take up some of the shock of the pole hitting the box. On an ideal takeoff the pole should split the body, and hands should be directly over the head. Vaulters having trouble rubbing the pole with their side or leg as they go up usually can trace their trouble to the fact that their takeoff is too far to the right, thus causing their body to swing into the pole rather than around it. To bring the foot properly under the pole, the shift must be watched carefully as it is usually the cause of the trouble. Improvement is the technique of shifting usually eliminates hitting the pole.

The Swing

After the vaulter leaves the ground it is important that he follow a few simple rules regarding the swing. He should not be in a hurry to start pulling. There is a definite delay to take advantage of the velocity which has been developed on the run. By pulling too soon the vaulter works against himself inasmuch as he is acting to prevent the body from going forward by trying to direct it upward immediately. If he delays momentarily, the body moves forward, the arms extend, the legs swing up automatically as the grip of the hands on the pole stops the forward progress. The right leg action on the take off is as follows: it is driven upward with bent knee as if taking another stride in air, then straightens until it is parallel as the body passes the pole on the swing. Vaulters can get the idea of the swing better by letting the stomach out and arching the back, letting the legs trail during the swing. If they do this, they usually insure enough delay to get a good swing.

The Pullup

The pullup should start approximately when the knees are at shoulder height. Once the pull is started there is no pause in the process; it continues and merges into the pushoff. The action of the knees during the pullup is very important. They should be brought back as closely to the pole as possible for better leverage so that the shoulders are on one side and legs on the other as the body is wrapped around the pole. This is called a roll back on the pole. Without this action it is difficult to get proper leg elevation and the weight of the body is much harder to handle from a leverage standpoint.

The Turn

As the knees come back to the pole the turn is started. It is accomplished by a simple scissors action of the legs, the right leg crossing over the left. It is done while the body is moving upward so that the turn is a twisting shoot upward rather than a mechanical rollover of the body. The pull and turn are accomplished almost at the some time except that the pull starts slightly ahead of the turn.

The Pushoff

This action begins where the pull ends. When properly executed it can add as much as 12 inches to a man's best height. However, unless the pullup, turn, and roll back on the pole are done well, the body can never be in a good position to push off. That is, if the body leaves the pole too far during the pullup and turn, the vaulter can only push away from the pole and not upward. The tip of the pole should almost brush the right shoulder as the pushoff is being accomplished. The spring and continual pressure of the pull and push and finally begins to spring back as the pressure of the body's weight gets lighter. This accounts for the apparent flying off the pole by the vaulter who has mastered the correct form.

During the pushup some vaulters bend their right leg at the knee, thus bringing the leg back toward the runway. This helps keep the body weight closer to the pole and aids in maintaining good balance.

After the maximum push has been achieved, the pole is released. It is important to keep the legs up throughout the push and until after the release has begun. Pictures showing the legs down at the level of the hands and while the hands are still holding the pole, definitely do not show good form. Legs start down after the release and the body forms a slight arc not a sharp bend at the waist.

There has been some controversy about whether the release should be one action or a one-two action. The left hand has a tendency to begin the release first, for a very natural reason. It is lower on the pole and as the body leaves the pole, it must begin releasing first. However, the entire pushoff itself is a two handed affair; any push remaining after the left hand begins the release is negligible. If the vault is well executed, the body will still be moving upward after the pole has been completely released.

VAULTING SUGGESTIONS

1. After each vault, place your foot in the imprint left by your takeoff foot and check to be sure it is on the center of the runway and directly under the hands.

2. If your heel is not inclined to get sore, a light running shoe may be used. The spikes in the heel are not necessary except to protect the heel at the takeoff.

3. When selecting a pole, try to get one that is fairly uniform with no taper. Spring it in all directions to be sure that it does not contain a weak spot.

4. Watch the standards on all jumps to be sure that they are in the right spot. Have your team mate stand at the side while you vault to check the highest point of your vault.

5. Make your first vault a good one - try not to waste nervous and physical energy, by depending on second and third jumps to clear each height.

6. Keep your eyes on the box as you come down the runway - keep them there until the pole hits, then look up at the bar.

7. Always think in a positive manner - make up your mind that you are going to make the height before starting down the runway.

8. A little sawdust placed in the box will help ease the shock of the takeoff.

9. Get properly warmed up before each vault - this should be done 5 - 10 minutes before your jump.

SPECIAL PROBLEMS

Height of Handhold

How high the pole should be held depends, of course, on the individual vaulter. The tendency in recent years has been toward shifting to a higher hand hold. Top flight vaulters now hold around 13 feet 6 inches of pole or 12 feet 10 inches when the 8 inch depth of the box is substracted.

The highest hold maintained by the writer on 15 feet plus jumps was 13 feet 11 inches or 13 feet 3 inches with the top hand even with the bar. Bill Sefton vaulted 14'11" with a 12 feet effective grip. Irving Moore made 14 feet 6 inches with a 11 feet 3 inched grip, one of the highest pushoffs on record.

IMPORTANT FACTORS

Many factors influence the handhold. The most important is probably speed. The faster the boy, the higher he should be able to hold.

A tall boy should hold higher than a short one.

A vaulter who gets off the ground smoothly can generally handle more pole than one with an erratic takeoff.

Even the pole itself influences the hand grip since a limber pole is more conducive to a high grip than a stiff pole with little give to it.

INCREASING HEIGHT OF HANDHOLD

Beginning vaulters usually have to grip the pole higher than the crossbar. As their skill increases they gradually gain height until they are able to make heights higher than their grip. From that point the coach should decide whether the grip should be increased or whether more height can be obtained with the present grip.

The best time to try a slightly higher grip (one or two inches at a time) is during meets when the vaulter feels good and when favorable vaulting conditions prevail.

Trying higher grips in practice is generally not satisfactory because the competitive incentive is not present.

TAPING OF SHIN SPLINTS

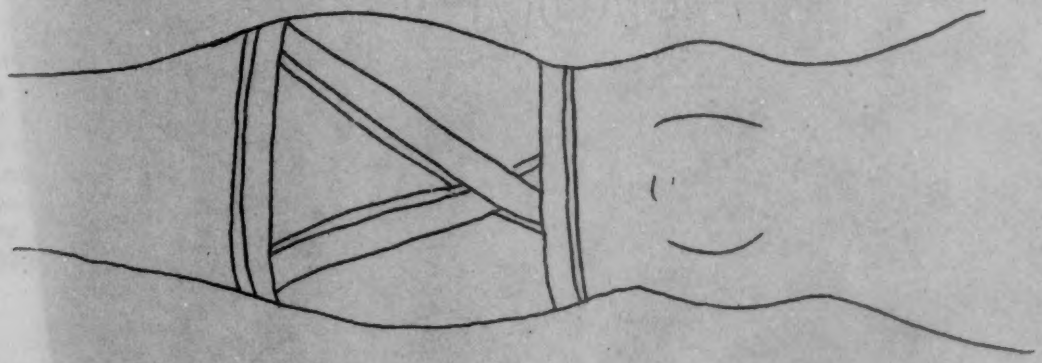
R. "Kickapoo" Logan
Logan, Inc.

D. J. Archer, very successful Trainer for Los Agneles City College, has designed a new taping for shin splints, which can be used as a preventative measure, as well as a relief aid.

His theory is that constant tension should be put on the achilles tendon, and this can be done only by pulling up on this tendon--by taping above, below, and around the belly of the lower leg muscles (gastrocnemius and soleus.) He supports his theory by stating that in running, when the foot is not in contact with the earth, or floor, the foot is held in a hanging position, and is in a limpid state. By that, the tendons and ligaments are not pulling up on the foot to the ankle. He states that as the foot strikes the floor or earth, in hard, fast running, there is a terrific force thrown into the saddle or socket of the ankle. This sudden force, and shocking motion, vibrates the entire lower leg, and often sets up an irritation along the internal and external areas of the two lower leg bones, known as "shin splints".

To combat this condition he suggests that the Trainer first apply Skin Tuffner to the area to be taped. Then his method of taping is the use of one inch strands of tape applied lightly above and below the belly of the lower leg muscles. Next, take a strip of tape 1½" wide and approx. 18" long, and apply the middle section of this strand of tape on the back of the leg on the lower piece of tape that is belted around the leg. Bring the two ends around toward the front of the leg and pull up the muscles of the leg as you pull the tape up and together at the center of the upper piece of tape. Secure tightly. The "pull" on the tape should be firm and with some force. However, do not cut off the normal superficial circulation. Repeat this taping above and on the first application to give greater effect, as well as to re-enforce the entire application of the tape. Wear this application only during the time of physical activity.

ARCHER SHIN SPLINT TAPING



TREATMENT OF PULLED MUSCLES IN TRACK

Pulled muscles in track are serious, occur seldom, and generally speaking are unnecessary. The causes of this acute muscle condition usually is inadequate and short warmups, plus the inability to relax under stress and strain.

Once a muscle pull has occured in an athlete, my first question is, "How did it feel when you first noticed the condition?" If the athlete advises me that it felt as if someone hit his leg with a stick or club, I do not let the lad run for at least three to four weeks. If the injured boy advises that he didn't notice the pull until after the race or the next day in practice, I keep him off the track for a week, and run him at ¾ speed the second week.

As for treatment of the above, I apply cold packs, or ice packs preferably, for at least 45 min.--to hasten coagulation of the blood in torn muscle fibres. Next, I apply analgesic balm packs to the area, and wrap leg and balm with an elastic bandage. On the next day, I use an infra red baking lamp for 25 min. direct on the area, and massage gently around the pulled area.

On the third day, use whirlpool--gentle massage, and minor flexing. While the lad is at class, I keep an analgesic balm pack on the leg. This method is continued for three more days, then gently stretching is included into the program. The purpose of this is to minutely pull out any minor adhesions that have formed in the healing period, i.e. the muscles must "heal long". If they remain short then there is naturally a pre-disposing condition ready to be agitated in a later weak moment.

In the third week, run the boy at ½ and ¾ speed. From there on out it's easy running, and full speed only in competition.

STRETCHING EXERCISE

The latest and perhaps the greatest stretching exercise for the low back, the ham strings, and the glutial area is the one worked out by Dr. Harvey Billig of Los Angeles. While in the U.S. Naval Hospital, where I was in charge of Physical Rehab., Dr. Billig gave this great 'stretcher' to us, and we used it on thousands of physically incapacitated. It worked wonders.

The athlete stands on one foot ('flat footed', that is) and then crosses the leg over the other and exerts some pressure on the toes of the crossed foot. He then keeps the straight leg absolutely straight and starts bending only at the hips. He bends at least four or five times at a fast rate of speed, and on the last bend he snaps the heels of his hands to his toes--thus completely stretching his glutials, the hamstrings, and the low back muscles. It is the contraction or trauma in these muscles that stimulate the various "low back" conditions. Thus by stretching in this manner at least twice a day, we can in many, many cases eliminate sacro-iliac and sacrolumbar conditions; as well as keep the legs stretched for all sports.

SALT LOSS

When you sweat and play, salt and energy are thrown off. Naturally these items must be replaced. Salt-dextrose tablets make up for these losses during play. Take one with each meal--with water--especially during hot weather and when working in warm gymnasiums.

PART II

Report of the regular annual meeting of the NCTCA which was held in June, 1949 at the University of Southern California in Los Angeles.

HIGH AND LOW HURDLING

E. C. Drake
Track Coach, U.C.L.A.

This report is written on the style of hurdling used by Craig Dixon of the University of California at Los Angeles. Last summer, on his tour of Europe, Dixon won twenty-one hurdle races in weeks without a single defeat. These races were run on all kinds of tracks and under all sorts of conditions with an average time of 14.26.

There are several things which go to make up a champion hurdler. With some of the most important of these, the coach has only a passive part. I refer to speed, mental attitude and the will to win. Many things can be done to develop a boy's maximum speed such as improvement of the start, changes in running style to eliminate false motions, work with sprinters who will force him to his best effort and improvement in general well-rounded physical conditions. However, it is generally conceded that speed is inherent in athletes.

To be a champion hurdler, it is necessary for a boy to be a fine sprinter. Sometimes speed will cover up a lot of faults in hurdling style. On the other hand, a boy will often sacrifice some speed for fine hurdling form.

When a boy is first learning, he must possess a great deal of courage and "stick-to-it-iveness." He can expect many a bruised and battered knee. But he must always come back for more! He must have the desire to be a good hurdler and have the determination to win. He must have a great deal of confidence in himself and know that some day he will be a champion. The coach, at all times, must keep alive his ambition to excel.

Hurdling can be divided into four parts: The start and approach to the first hurdle; the hurdle itself; the race between hurdles; the finish. The position of the feet in starting is determined by whether the boy takes off for his hurdle on the right or left foot and the number of steps he takes to the first hurdle. In beginners, this can best be found by the trial and error method. By the time a boy gets to college, he has established his foot position. Rarely is an effort made to change it. In starting, the length of the first step is determined by the length of stride and distance of take-off from the first hurdle. Craig Dixon takes off about seven feet on the front side and lands about four feet on the other side.

A great deal of time should be spent on developing a fast start. Speed in the early part of the race is very important. There is a certain psychological advantage in getting over the first hurdle first.

I believe in the two-handed approach to the hurdle rather than the single arm because it given a chance for more rush with the head, arms and shoulders. It also places the body in a better layout position over the hurdle and eliminates some of the tendency to twist the shoulders. The hands should not be raised too high, but out and over. After the hands are thrown forward, the arm working with the forward leg is slightly delayed and the other arm is brought down in a position with the hand almost touching the foot. When the other arm is pulled back, the elbow should be bent as in a regular running stride. If the pull is with the elbow rather than the hand, the breast stroke motion of the arm may be eliminated. This arm action is somewhat quicker and shorter than the normal running action.

STOPPED MOTION STUDIES OF CRAIG DIXON'S HIGH HURDLE ACTION

RUNNING UNDER ACTUAL RACE CONDITIONS

RANDOM SHOTS

1.

Shows fair rush and good arm and leg rush.

2.

Very fine rush into hurdle. Also shows good lay out.

3.

Good legs. Good left arm. The right arm is poor; the elbow should be bending at this point.

4.

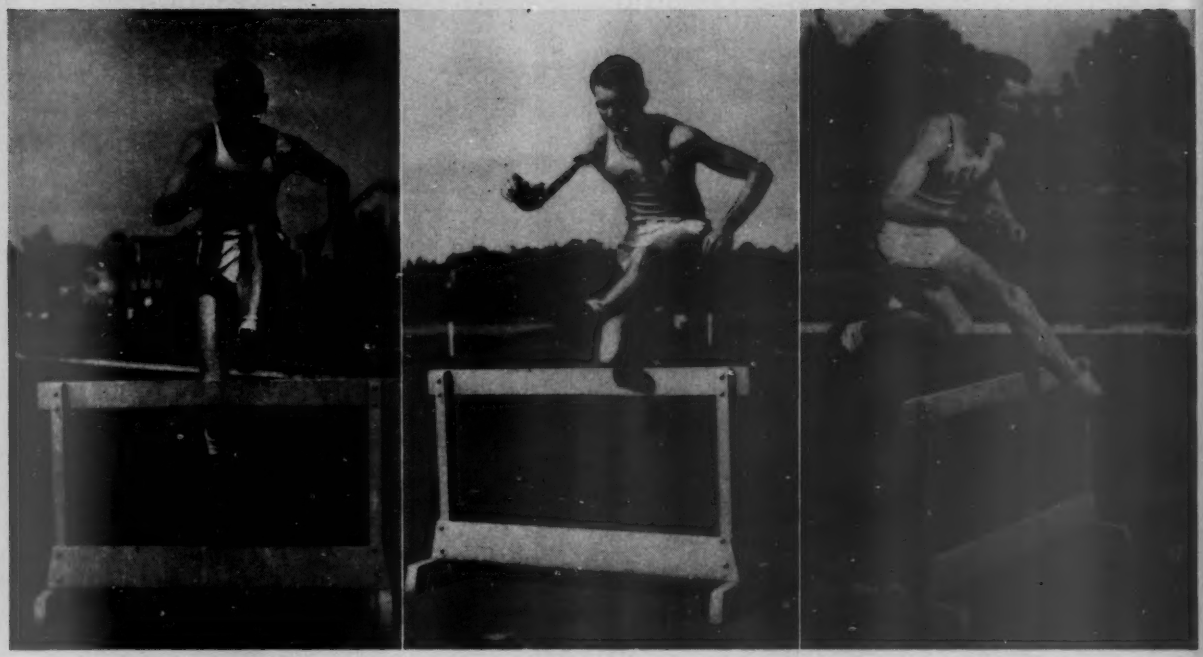
The right arm is much too high at this point. There is not enough rush and lay out over the hurdle.

5.

Not enough rush. Good back and front leg. Right arm too high. Some unnecessary twisting of body.

PHOTOS OF DIXON COURTESY ASCULA PHOTO DEPARTMENT

LOW HURDLES



I believe these are very fine pictures of the low hurdle. They show low hurdling as a running roll.

-ELVIN DRAKE

PHOTOS OF DIXON COURTESY ASCULA PHOTO DEPARTMENT

AN ADDED FEATURE

To make these pictures of Dixon more useful for you an additional set has been included so you will not have to mutilate your copy of the Clinic Notes if you want to use the pictures for display purposes.

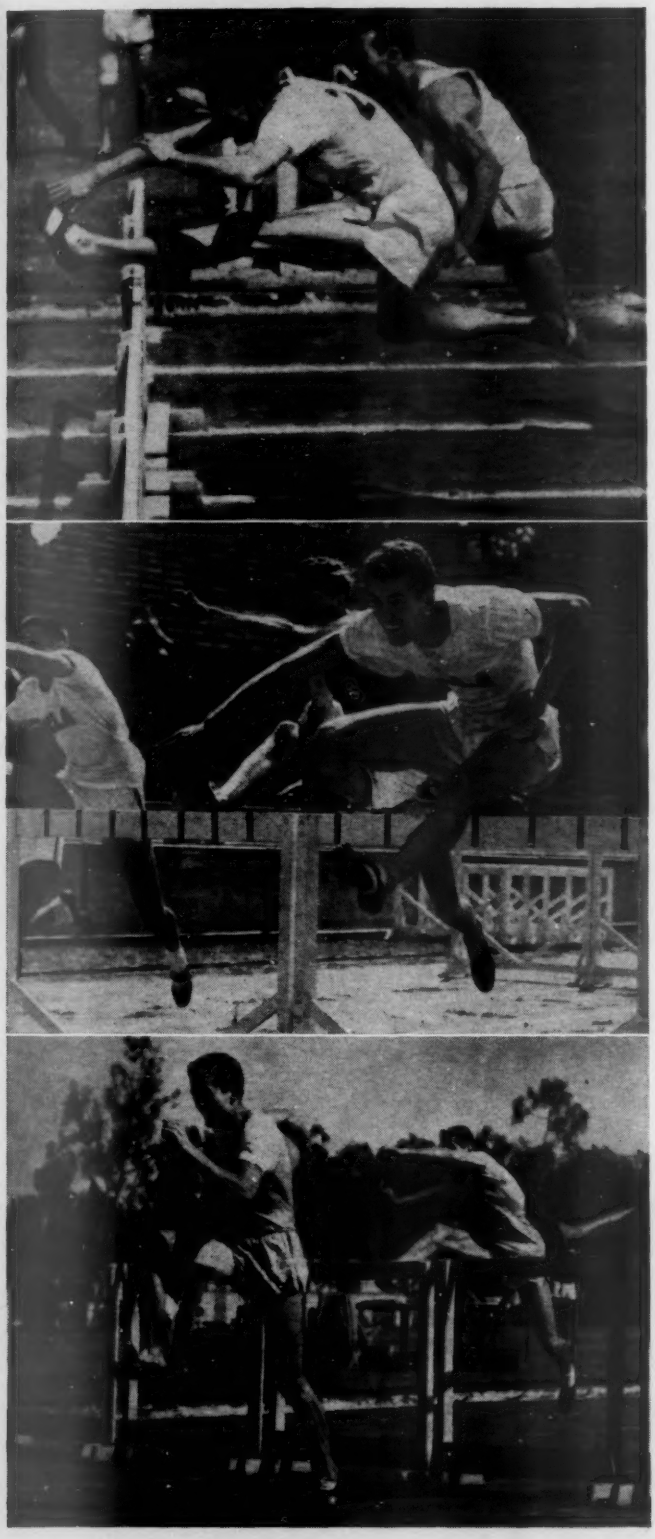
This additional set of pictures is printed on only one side of the page and is perforated so you can easily remove the pictures from the book for posting on your bulletin board. They are printed on extra heavy stock to increase their life and, with reasonable care, may be used for more than one year.

Lauren P. Brown, Editor

Note: The sheet upon which this message appears has been perforated so that it, too, may be removed from the book after it has served its purpose.

STOPPED MOTION STUDIES OF CRAIG DIXON'S HIGH HURDLE ACTION

RUNNING UNDER ACTUAL RACE CONDITIONS



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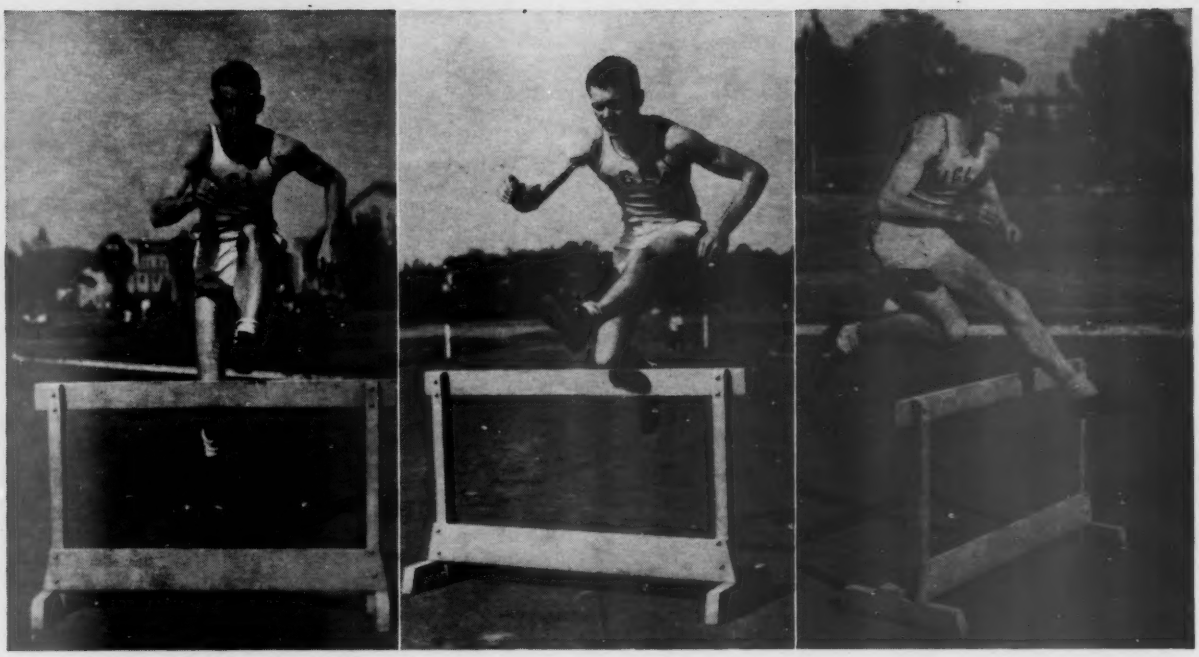

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PHOTOS OF DIXON COURTESY ASCULA PHOTO DEPARTMENT

As the front leg is brought up to clear the hurdle, it should come up with a stepping motion as if the boy were going to step over a fence. The leg should not be kicked at the hurdle because this will have a tendency to tighten and lock the knee. Although the knee will be stretched tight over the hurdle, it should be a relaxed stretch. As soon as the forward foot is over the hurdle and the rush is completed, the front leg should be snapped down onto the ground. The boy should not hit the ground with a stiff, tight knee. The body should be forward in a well-balanced running position.

When the back leg leaves the ground, the first motion of the knee should be directly toward the hurdle. There is a tendency to drive the leg toward the outer corner rather than directly at it. After the leg leaves the ground, the lower leg should be turned out and the toe pulled up. This will pull the upper leg out so that at the actual time the "drag" leg clears the hurdle, it will be almost parallel to the hurdle. If all of this motion is done after the foot leaves the ground, it will help to keep the body straight instead of twisted. As soon as the leg clears the hurdle, the knee should be driven forward and down. With a shorter man, it will be necessary for the knee to come up higher under the arm.

In working with hurdlers, I find the tendency is for them to get too close to the hurdle rather than too high above it. The high point should be about three or four inches behind the hurdle which enables the man to be actually coming down as he clears it.

After a boy has spent hours and hours on his hurdling form, he will find that there is nothing as important as speed between hurdles . The race between hurdles should not be mechanical. Rather, each one should be a new sprint. Perhaps the best way to explain this is to say that each hurdle is a new challenge, a new enemy to conquer. It is necessary to have that kind of drive between them. Many times, after the last hurdle, a boy figures the race is over and he does not run hard into the finish tape. He should remember that as soon as he can get over the last hurdle and on the ground, he is immediately in a sprint race.

It is not necessary to give much more explanation about the low hurdles. If you have a short boy, he may use some of the style explained for the high hurdles. If you have a tall boy with the speed of a sprinter, the low hurdle is just a necessary evil in a sprint race. The boy should step over the lows with a normal running stride. Do not worry about height. Keep the body in normal running position. Try to avoid ducking the head and shoulder into the hurdle. Be sure the lead leg comes over in a straight line not with a circular motion. The back knee should come through in a regular running position with very little, if any, outward rotation of the upper leg. Simply turn the toe up to avoid hooking the hurdle with it. Land as close as possible. Don't float over. Tall boys many times have trouble with their step because they get too close to the next hurdle. This can usually be corrected by getting on the ground quickly and sprinting rather than striding to the next one.

Our best hurdlers, at the present time, are two types of boys: Those who do not have what might be accepted as the best style, but have excellent speed between the hurdles and those with somewhat less speed, but better style which gets them over the hurdle quickly and with a fine rush between them. Most of our best hurdlers at present are tall boys, six feet or taller, although many of our past champions were short in stature.

CROSS COUNTRY AND DISTANCE RUNNING

Karl Schlademan
Track Coach, Michigan State College

During my many years as a track coach I have, of course, attended a lot of N.C.A.A. clinics and have heard a good many different men discuss distance running, among them the late John Nicholson of Notre Dame, who, as you know, brought Greg Rice along and, of course, the late Billy Hayes of the University of Indiana, who without doubt ranks as perhaps the greatest distance coach who has appeared on the American scene.

I have been called on to talk to you, I presume, because of the unique record of the Spartan Cross Country team and distance runners this year. Without being accused of boastfulness, I might say to those who do not know it, that the Cross Country team of Michigan State last fall was the first triple champion in the history of the sport. They captured the I.C.A.A.A.A., N.C.A.A., and National Senior A.A.U. crowns and were not pressed in any race. Of the seven men who completed on the championship team, three had backgrounds of high school distance running, the others developed on the campus at East Lansing, and one of them came out of a gym class. I believe the best thing I can do to classify the methods used in bringing these men into condition is to outline the training schedules they followed which lead up to the winning of three consecutive championships in the last twelve days of the season.

The middle of August a letter was sent out to the top fifteen men, as we knew them from the season before. They were told to commence to think about the fall season and, if possible, to do a little running about two days a week. These men reported before registration in order to get settled in their quarters and thus permit them to work with a minimum of interruption through registration and freshman week. During the first two weeks of the training period, I scarcely followed the men at all. In fact, I paid as little attention as possible to them in order to keep any semblance of pressure off at the beginning of the season. They were told to put the emphasis on conditioning work--that is, long, lazy, limber-up calisthenics followed by a little fast striding 150 or 200 yards before they started out into the woods or commenced to go around the track in their easy overdistance work-out. They were told that by the end of two weeks they should be able to run three or four miles at an easy pace. At first all the work should be running and walking alternately. We found that the men paired off. Certain fellows would run together each day. In the morning we insisted on a long hike and in addition, they took a walk on Sunday. At the end of this preliminary training period we began the regular schedule of work which was carried out with gradually increasing strenuousness through to the end of the season.

Monday. Overdistance day. The Michigan State Spartans did their overdistance work on Groesbeck Golf Course. The terrain is very rugged with some trees and plenty of hills with quite steep pitches in places. They never ran any sort of time trials at the golf course, and my instructions after the limber-up, which all of them did after they all arrived as Groesbeck, were to run for a certain length of time. The first day, as I remember, I said twenty minutes continuous running. The next week we raised it to thirty minutes. By the end of the season the men were running a minimum of forty minutes and just before the 6½ mile A.A.U. Championships, they ran for a full hour. There was never any racing except that toward the end of the runs the better men naturally drew ahead as they picked the pace up a little bit. In fact, we tried to avoid any semblance of competition in these overdistance runs, and we found that the men looked forward to the Monday work-out with more eagerness than to any other day. Some times we split the squad and started one group around the course one way and the other the opposite direction, and when they

met up one squad would wheel and they would go on together from there. The distance around this golf course is about 1-7/8 miles. Toward the end of the season the men ran as many as five or six laps without any semblance of exhaustion and apparently were having a good time.

Tuesday. Tuesday's work was generally on the track, and we worked out with the idea of running 70-second quarters, which was all the pace work we did for the year. If we had as many as 75 or 100 men, we would form them into groups of about ten men each. One of the men would be appointed a leader and the others would follow him. We would work two groups simultaneously in this fashion. Group No. 1 started with the watch at 0 and in 30 seconds the second group started, and the two hands on the watch worked the time for each group. The manager jotted down the times and showed them to the groups while groups 3 and 4 went around on the track. In this way we were able to save time and avoid congestion. As the men got in better shape, they would run as many as 5 and 6 quarters in a work-out, and after they were well established at the 70-second pace, we would change to build-ups--that is, they would run the first half of the quarter at pace and then gradually pick it up and finish sprinting hard. The work-out was so arranged that there was just enough rest between quarters to let the men recover about $\frac{3}{4}$ rather than completely. This kept them running as they would start a race after a thorough warm-up. The squad was always instructed that they must judge their own condition. If, at the end of 2, 3, 4 and 5 quarters, a boy thought he had had enough, he would drop out. The general idea of all the work was to get just plenty tired. Exhaustion in practice is definitely bad coaching. After his shower a boy should feel fresh and hungry.

Wednesday. Wednesday's work-out was generally back on the regular course. The men might trot around the course quite easily with a rather fast finish, or if they were not yet in top condition, they might take a double loop back in the wooded section of the course which would make the Wednesday work-out another easy over-distance. About two or three times during the year we ran the first mile of the course and put a watch on it, because the boys continuously worried about the pace of the first mile. We tried to run this mile between 4:40 and 4:45. After about two such work-outs, we definitely discouraged any further timing in actual running on the course. It is definitely possible for runners to become so pace conscious that they lose their race consciousness. I am of the opinion that the American track coach runs around too much of the time with a stop watch in his hand. Every time you use a stop watch on any part of a race, you are putting on pressure. The exercises on the track with a stop watch can hardly be called pace work when you consider the fact that the men run an utterly different terrain and run a minimum distance of four miles.

Thursday. Thursday was generally speed day. They were back on the track. We discarded the watch and build up quarters in competitive 300-yard and quarter mile races. Whatever distance work the men got on this day had to be in their warm-up.

Friday. Friday was a rest day.

Saturday. Saturday was a competitive day. Up to the first meet, we worked straight through Friday. Then Friday was an easy limber up, and on Saturday we would run the squad around the course. We tried to keep them grouped and to see that everybody got the feel of going the full distance with a larger group. If I used the watch, I was not inclined to put any emphasis on time at all. If the man asked me what the time was, I told them generally that it was in the neighborhood of such and such a time.

For our first meet we finished the week with a definite try-out. The coaching staff used the meets on the week-end as try-outs for the next week-end. When a man protested that he had not had a chance, we generally let him run the course with some sort of arranged competition and let him look at the watches at the conclusion of the race. I might say in passing that in no case were the coaches proved to be wrong. This type of work continued throughout the year with occasional days of rest thrown in before we got to our final championship meets. The men's weights were checked rather carefully. Toward the end of the training season, the boys started to pick up a little weight, which is an indication of extremely good condition.

The I.C.A.A.A.A. course at Van Cortlandt Park, New York City, starts with a 440-yard straightaway and a turn left around a post. The week prior to this race, we spent a couple of days running a straightaway quarter mile. The seven men who were going to enter the I.C.A.A.A.A. would run singly and in a group, and we set the pace at 65 seconds. Experience had shown us that the eager beavers would get down and around that post in under a minute, and we wished no such thing to happen to our group. On the other hand, 70 seconds would throw us too far back, so we set our clocks at 65 and found ourselves in a field of approximately 300 runners in very nice position just as we had planned. The men who went out ahead and ran too fast dropped back rapidly, whereas our group moved up and came through placing five men among the first fourteen. The I.C.A.A.A.A. distance is five miles, and we had run one five mile race and two four mile races prior to this meet.

The week following the I.C.A.A.A.A. we competed in the N.C.A.A. in the four-mile distance in East Lansing and won quite handily. This race was on Monday, and on Saturday of the same week, we were due to compete in the Senior A.A.U. Championships (10,000 meters; a little over 6 miles) at the Warren Valley Golf Course in Detroit. This course is very tricky and rugged. There is scarcely 100 yards of flat terrain in the whole thing. So, following the N.C.A.A., we laid off all day Tuesday, went out Wednesday and ran for approximately one hour over the most rugged terrain on our own training course. We laid off until Saturday, and every one of the seven men came through the 6¼ mile race with no bad results and in the best form of the year.

I have been asked repeatedly by various coaches whether or not distance running of this type "flattens out a middle distance runner", meaning by that, I presume, that it would reduce his speed. I feel absolutely to the contrary except in the case of a sprint-type quarter miler. I should not advise a quarter miler to run competitive cross country, but I believe that he should work with the cross country squad in the fall in order to build up the necessary bottom for his spring work. In the case of half milers, milers and two milers we consider cross country running an essential part of their training. If a boy has worked consistently and with judgment throughout the cross country season, he need not worry about his underlying endurance. He may spend practically his whole time at underdistance work on pace and speed.

I am convinced that if we continue to push cross country and can keep a few of our better cross country men and middle distance and distance men running after they have finished college and have reached their full strength as older men, then we will be able to compete with the best that the Europeans have to offer.

In conclusion, may I say that I am perfectly aware of one thing; namely, that practically all of the better distance runners of the country come with the northern climate. There are, of course, exceptions like Zamparini of Southern California and men like Bob Chambers and Pruitt, middle distance runners at Southern California, but you will find most of the depth in middle distance and distance running in the north. This is, I believe, climatic condition, which could be overcome if the southern would find an approach that would eliminate the southern athlete's dread of running beyond the shorter distances. Personally, I am definitely sold on cross country running as a foundation for track in the spring and in order to have it most efficient, we need competition to keep the interest up.

THE BROAD JUMP

Jack Weiershauser
Track Coach, Stanford University

The broad jump is one of the hardest events in track to coach for several reasons. Until a man's legs are in shape he can't jump for distance and after the season has started, he still can't jump in practice as he may kill all the spring in his legs for the meet on Saturday. There is also the danger of injury; rare is the jumper who completes the entire season without a sore tendon or a heel bruise. The good broad jumper, therefore, must be a natural athlete in this event. Not many coaches will take their best sprinter and let him broad jump, the injury gamble being so great.

A jumper's leg strength must be such that he can straighten his knee while running at full speed in order to get the necessary lift. The more he can bend the knee and yet still straighten it, the higher he will get into the air. Speed is very important but this lift is even more so. It is doubtful if Patton would ever be a great broad jumper for this very reason. The main fundamental of broad jumping is to get the body weight directly over the take off leg at the instant of jumping. The tendency is to stretch for the last stride and to have the foot out ahead of the body, thus leaning back at the takeoff. In this position it is impossible to get a lift of any kind. If the foot hits the takeoff board with the weight directly over the foot, the body will have an angle of 18-20 degrees as it leaves the board due to the speed of the run. This is a very important point and is hard to coach to most prospective broad jumpers.

The take off is preceded by a very important shortened last stride and also the next to last stride. The last stride should be shortened about eight inches and the next to last stride about four inches. The purpose of this shortening is to faciliate in getting the body weight over the take off foot. In practicing the run through, perhaps it may help to hit a mark about 12 inches ahead of the board. This will mean that the check mark is correct and then in jumping, if the last two strides are shortened properly, the man should hit the board correctly.

The action of the body in the air can be of three types. The jumper can use the hitch-kick, run in the air, or he can just sit in the air; whichever seems more natural, and will definitely get his feet up. However, it is impossible to throw the body through the air any faster after the takeoff. Form can do only one thing - get the feet and legs up even with the hips. Most men seem to prefer the running in the air style.

The landing position is important and should be constantly stressed. The longer the heels are held off the ground, the longer the jump. The maximum point is when the hips land even with the heels; over this, the feet are dropped too soon, under, the feet are too high. The style in which the jumper stiffens one leg and relaxes the other so that the body is swung to one side is preferred, but many good jumpers merely go through the knees. The important fact is that form is unimportant, except to keep the heels off the ground until the last possible instant. A coaching point is to tell the man that for every inch that he can keep his heels of the ground, three inches are gained for the jump since he is coming down at a thirty degree angle. This may be theoretically true but practically should be used only as a psychological point.

If a broad jumper were to be asked about his chief worry, the answer would probably be whether or not he will hit the takeoff board correctly. This can come to be all-important for the jumper, making distance in the jump secondary. I believe that a jumper must develop a foot-eye co-ordination or memory that will make his step hit correctly or nearly so. The coach may have a jumper who uses two check marks but who consistantly hits an inch over the board, so he moves the check marks back an inch only to have the jumper again hit over the board the same margin. Again the check marks are moved and again the jumper misses the board, until the point is reached where the incorrect foot hits the takeoff board. My idea on this is to make the jumper develop this so called foot-eye co-ordination by practice. It is really a memory of where the board is, as the jumper loses sight of the board on his last four strides and must remember where it is. If he hits over, he must exaggerate and over-exaggerate his memory in order to hit the board correctly.

Check marks may be used but they are not a guarantee of hitting the board as so many factors change the distance. Wind, runway speed and chewing up variances, fatigue and "pressing" on later jumps will all contribute to the man's inability to succeed. Rather the coach should use check marks to enable the runner to have the correct foot hit the board and that only. Then the jumper must use his memory. The use of check marks may become such a crutch to jumpers that they never develop this other sense and may cancel themselves out at a big meet through fouling their best jump or jumps.

THE JAVELIN THROW

Dr. Stephen A. Seymour, D.O.
Los Angeles Athletic Club

Members of the National Collegiate Association and most honored guests the track and field coaches gathered here today at the University of Southern California..... May I thank you for this singular honor of speaking to you on my favorite field event, the javelin.

I consider the honor of being before you one of the three greatest thrills I have experienced in the past fifteen competitive years with this ancient lethal weapon, superseded only by the day of my top performance and secondly the Olympic Games competition. During these years I believe I have studied everything written about the spear whether from foreign translation or your own pens. This has brought me the tremendous pleasure of contact with men who understand this most difficult event such as Brown, Peoples, Biles, Held, Pickarts, Cromwell, Templeton, Detweiler, Comstock, Jarvinen, Nikkanen, Hytiannen, Rautavaara, Vesterninen, Sippila, Valste, Daleflood and others.

Today, based on those experience, I hope to present to you a degistible resume of a thousand and seven errors that I incurred and yet incur in the hope that my blunders will eliminate many of the fallacies and unsound technics that today burden all javelin men with their coaches. Equally I would lift this glorious event to the popularity and respect in USA that I found in Europe, particularly Scandinavia.

The javelin thrower is often well-equipped as a likely decathlon candidate. He is too strong and heavy for the distances and too slow for competitive sprinting. His proportions as a light-heavy limit his distances with the weights. I should expect my would-be champion to fly over a hundred yards in from 10.4 to 10.7; to be well-conditioned; to approach 4:50 in the mile; to spring to 21' in the broad jump; drop the shot thereabouts at 43'. With this physical equipment or its equivalent our would-be champion may day-dream of records. Otherwise he may but day-dream.

THE SAFETY FACTOR: This dynamic and most picturesque of all events has too often been the subject of abuse by "athletes" whose talents extend through typewriter gymnastics. Like alcohol, the spearhead is quite safe if in good hands and properly counseled and, most important, if performed on adequate throwing grounds. Crowded athletic facilities have in many instances eliminated javelin heaving or otherwise categorized it as dangerous. I know the javelin itself is harmless. Environment and the hands of fools make it otherwise. My cardinal rule for beginners, "Never release this beautiful weapon if anybody stands before you, regardless of distance". AFTER this fact is absorbed the front end of the dart may be demonstrated.

I graduated from the weed-throwing period and reached 113' in my first year with the spear using the passé underarm carry, palm downward, with a right-footed hop, landing with the right foot parallel to the throwing board. Cromwell would slyly admit, "The best thing I can say for this style is, don't use it!" and the Dean is quite right unless the overhead carry is substituted as Mikola of Finland did ten years ago levering the aluminum spearhead into the 240' plus category at Budapest for the longest distance on grass ever achieved by a Finn Lancer. This lad was short, stocky, and yet an agile gymnast who achieved three meters on his hop into position. For initial mention of our article's theme, EACH COACH IN EACH EVENT MUST ADAPT THE STYLE FOR THE ATHLETE and never to the contrary!

In my second (and senior) high school year of track and field I initiated a long period of the American back-cross technic easily, swinging the right foot back of the left foot prior to the final planting of the left foot, plopping the spear at a top of 149'. I consider this form the best fitted for adoption by high school coaches, with their more agile and quick athletes being taught the simple hop method with its elementary footwork but precision timing. The back-cross is a natural way of pebble throwing for the large majority of boys. As a collegiate coach I would lead most of my athletes on to the hop with some 25% of the more graceful athletes starting on the front-cross. Club athletes with long and varied track careers are invariably front-cross candidates with excellent fundamentals in the heave-ho. But the hop is easily mastered in the three short years of collegiate throwing.

Constant experimentation, without formal coaching, advanced my four years of collegiate back-cross through 174, 183, 196 and a last collegiate meeting, versus Villanova, of 208'. There were the usual unrestrained workouts with aches and twinges in the elbow; the compensating sidearm tossing, further aggrevation of already existing pathology. There was the continual development of a more vicious reverse; cross-country work off season of anywhere from two to fifteen miles of jogging for toughening the body; the development of an overarm carry which gradually acquired some relaxation; many quarter miles in and about 55 seconds; calisthenics; lots of off season swimming, despite many authorities opinions to the contrary; hours of relaxation and wrist development with the 12 pound shot. But, most important of all there was a tremendous amount of throwing the javelin, in case we seem to have deviated from our original purpose. Using the over-simplified back-cross a coach can readily improve the above-average college thrower unless there is too much coaching. Pity that poor athlete!

Seasons that followed brought a switch to the front-cross as first demonstrated to me by Boyd Brown (232') of Oregon, who was frequent repeater as National AAU Champion. My first season on this style I managed 221'; the next 228'; and two years later with the U.S. Army in Istanbul 235' 3" with an American (Gill) spear. The switch was facilitated by the good hands of Coach Bob Detweiler of Pennsylvania who had lofted a 200 footer in AAU competition besides creditable marks in all the weight events. I was using the so called Finnish steps with the same variation that Bob Peoples of USC (234') had used. Bob and I worked out together on Franklin Field and we would hit the 2nd checkmark on the right foot giving us a six count instead of the Finnish left foot on the check with a five count. Each toe turned outwards slightly more than the previous step and on count five the right foot was parallel to the board prior to a wide-spread step; then the throw. Detweiler INSISTED on a measured run; no wasted motions up to the line of throw. And he would wax furious when we jammed our left foot into the ground, serving as a brake, thus throwing around the corner instead of THROWING UP AND OVER THE LEFT FOOT AND LEFT TOE. Or he would tear his hair when the left knee would bend and the elbow might swing wide. Meanwhile my personal training was continually more severe with several miles of daily jogging to the practice field and a half mile run or swim after most workouts. Coordination was not inherent and thus had to be acquired. I feel that off season the athlete should run, and run some more miles. Reflexes covered with fat are apathetic as I later discovered. Pebbles, rocks, and weights may be thrown if done so with applied discretion.

The Finns now measure their heaves to the exact point of striking the ground as we measure the discus..this allows for the exact distance and accuracy. They generally throw as an outfielder hurling a long one to home plate, his right shoulder dipping as his arm drops down to hip level (the point of the javelin at left nipple level). The footwork is sometimes but a simple turning outward of the right foot before the left foot planting and the wide spread to the board. The javelin must be held so lightly it can drop to the ground. There should be the constant acceleration to the line or a "float" in the last 35 feet a la Warmerdan's pole vault, maintaining speed. Jarvinen preferred the "float" and Nikkanen preferred the acceleration throughout. This is the least mastered part of javelin throwing and the present factor that, to this writing, has prevented 260-270' throws.

Mid-season with the Army in Eygpt brought an apparent end to my competitive days as I wound up the victim of a fractured right elbow. Thereupon followed the worst year of my training, filled with nought but despair as I strove to break clear the adhesions that followed months in a cast. Punishment to the injured limb a year later was most severe as I threw a la Finnish, the elbow at one point of the throw being the weak link in the chain that had to take all the stress, with the right side of the body being the driving force. In the course of further suffering and difficulty it became apparent to me that not only was my strongest anatomical "power point" closer to the center of my body than I had previously judged, but I could throw if I "squared" my body and took the strain on the left Quadratus group of muscles (left lower back) and alleviated the strain on the elbow. The javelin throw had become a javelin thrust!

Such a discovery needed research. Several hours practice each day prior to the 1947 National AAU meet, along with two weeks needed vacation from the County Hospital service where I was externing in my senior year, brought results. I reached 220' practicing alone on the field, and felt marvelous with the hips and shoulders remaining squared to the front as long as possible; a definite body-bowing with the abdominals initiating a blast-like jack-knife that thrust the javelin VERY HIGH into the air. Up, not out!

DEMONSTRATION: The athlete stands in front of a punching bag and strikes as though an outfielder. Again he stands as though chopping wood, or a catcher whipping to second base. I easily attain more power by the second method.

The Nationals that year paid heavy dividends for in a relaxed driving warmup the spear wafted to 245'. I knew I might throw any distance, as I was higher and hotter than a fire cracker. Yet in the meet itself tenseness followed with muscles on top of muscles and knots on top of knots and luckily on the fifth bouncing down the runway I was leaning back with the tremendous necessary tension of abdominals yet with impetus and I achieved a 248'10" mark and a 6th toss well in the thirties. For the first time in my life conditions for the meet were prefect..a hot 100 degree day...a following breeze within required limits...a golf course type of runway in perfect shape..an enthusiastic crowd of some 20,000 and, most important of all, a bitter rivalry that made throwing in competitive anger vicious and violent for the first and last time I can remember. I can conclude today that no record was ever established without an over-supply of adrenalin and I had buckets of it that day.

I knew more strength could send the stick out to 263', but that evening chatting with Dink Templeton of the Olympic Club I was startled by stories of Australian natives and "spearwarfen" (it seemed very casual) to 300'. Dink apologized for the fact the natives took a slight run before they threw one hundred yards.

Throwing against the Contemporary Czechs, Swedes and Finns, in those countries following the '48 Olympics I was impressed largely with their lack of finesse and after studying them for years on film and text! Also, I was impressed by the tremendous number of throwers in the 200 foot class....28 in Sweden in 1947 and 46 in Finland that year. Yet the top mark was 237'. And this year USA had three men over 225' while Finland had only two. At our present progress within ten years we shall surpass them, for this year at the Nationals five Yankees threw over 218' and two over 230'.

THE JAVELIN ITSELF: I prefer the Gill rugged broom handle for practice more so than the breakable Swedish shaft. Yet the Finnish birch flies farther. As I saw them at the factory, they are constructed in one piece, two pieces, four, and six piece laminated darts. Some of the Helsingfors champs threw special "rat-tailed" weapons for their records. Jarvinen and I both seem to prefer one piece shafts although Nikkanen used a laminated job. Rautavaara has his "special" and most javelin men, including myself, may have put too much emphasis on the spear for I achieved my own record with a one piece stick; a 235' with a Gill; 237' with a two piece; a 243'

in Czechoslovakia with a one piece in '48 and three of five meets over 230' with a laminated javelin. The shafts used in the Olympics in London were laminated. I prefer a very slim javelin since my hand is small; yet it is natural that a large hand would prefer a proportionately larger shaft. With an engineer friend of mine, Burt Tjarks, I made a study of vibrations of all types of spears and arrived at many interesting conclusions regarding merits of all models. I would throw as many as twenty numbered sticks in one afternoon and Burt would make illustrative graphs of distance of each. Our conclusions were that the form used largely determines the best shaft to use. A thrower hurling "line-drives" would prefer a rigid shaft while a "high-flyer" should prefer a limber one. Regulations, specifications as to height, weight, diameter, and length are illustrated clearly in all rulebooks and intelligent athletes and coaches ought to be able to shift the center of gravity within the specified rules to best suit the athletes particular brand of throwing. To appease interested nervous tossers, I prefer the center of gravity as far back as possible. I can foretell an athlete's best style by studying his physique and watching him run. Furthermore as last year proved to me more than ever before, THE BEST JAVELINS IN THE WORLD WON'T GO EVEN 220' IF YOU HAVEN'T GOT WHAT IT TAKES! The season of 1949, in which I dropped to 5th in the National AAU, proved training and conditioning to be the omnipotent factors. Time forbade my regular training schedule in a post-olympic, hospital-burdened year.

THE GREATEST JAVELIN MEN OF ALL TIME: Nikkanen the world's record holder at 258'2-3/8" in Kotka, Finland in 1938. I visited the throwing site and spoke with athletes and groundkeepers present at the throw. It was low and into a mild crosswind. Nikkanen, standing 6' tall and 185 lb, did this on Oct. 16th, on the usual meticuoulsy-kept dirt runways that one finds throughout Scandinavia (in contrast to the gap-filled runways in USA), he sped down to the board making the most of his lightening arm, which was his chief asset. I met Nikkanen last season and, unlike Jarvinen who did 253' 4 1/2" in 1936 and holds the Olympic record at 238'7", Yrjo does not bounce along but throws with just the dip of the right shoulder and constant acceleration, as I mentioned previously.

JARVINEN: He weighed 195# at 6'2" and was the best conditioned weightman being of an Olympian family of athletes. He could do 4:35 for 1500 meters; 22½ feet in the broad jump, and resembled a tall football end. Nikkanen had faster acting, longer arms which hung to his knees but Jarvinen was stronger. His ten top meets in 1934 averaged 74.06 meters....about 246'. I had the distinct pleasure of beating Rautavaara, the London Olympic champ, in Stockholm and Jarvinen (who was 39 yrs. old) in a local Finnish in '48.

FINNISH WHITE HOUSE OF SPORTS: Eere where the Olympic athletes gather for their final training there are six javelin runways. Invariably they begin across the track and the athlete runs across the track through a wide section where the running track board edge has been removed and then up to a board about ten yards past the goal posts. Unlike our destructible four foot paths the runway of cinders is 12' wide. Rollers, rakes and equipment for runway maintenance are always present.

HEIGHT OF THROW: The Finns release is about 40 degrees; the Swedes generally at 45 degrees along with most USA men. My thrusting style is at 50 degrees.

OTHER COMPEMPORARY ATHLETES: Dale Flood, Petterson and Berglund are the choice Swedes, the latter leading the world in 1949 with 241'. Atterwall a "leg thrower" holds the Swedish mark at 244! Biles of the Olympic Club, San Francisco, throws like many Swedes. Held of Stanford tosses like Hytiannen, a typical Finn. They throw from a very low lying arm position swooping the javelin high. A long arm helps and THE STYLE SHOULD BE MEASURED TO THE ATHLETE! This past year there were six Swedes over 220', five Finns and four Yanks over the same. The javelin is on its way UP!

Vesterinen at 5'8" and approximately 155# nipped me in meet at about 228!

WEATHER CONDITIONS: Throw low into the wind, high with the wind. Long spikes with mud and do KEEP WARM on cold days! This is more important in the spear than even the mile run. And never abuse an injured elbow. Abstain and simply work on the legs. Rest three or more days if stale.

IMPORTANT MUSCLES INVOLVED: Particularly and briefly the biceps for flexion, the triceps for extension, likewise the trapezius, abdominals, serratus, Quadratus lumborum and latissimus. THE STYLE DETERMINES wherein the greatest stress shall be. I feel the Finns throw sidearm and, as Valste says, they all get sore elbows at one time or another. I feel my style uses the entire back...theirs the right half; but theirs provides a longer "reach".

TECHNIC TIPS:

DO: Get up and over the left leg.
Reverse as quickly as possible.
Point the spear only forward while running.
Completely extend the arm before the throw.
Take two days complete rest before competition.
Pull to the left and back with the left shoulder at throw.
Have a relaxed grip.
Keep the left foot "out of the bucket."
Keep the left shoulder high on the throw.

TOP JAVELIN COACHES:

Bob Detweiler. My dear friend. Nat'l AAU Committee of T&F. A moderator ranking at the very top in judgment, guidance and sincerity.

Dean Cromwell. Keenest of them all. Incomparable stylist and psychologist.

Dink Templeton. Taskmaster of the weights. Men want this analytical driver to force them on to ever better weight performances.

Boyd Comstrock. Theorist and visionary without peer. Theme, "Body Mechanics".

Finish Coach Armase Valste. A storehouse of knowledge but lacking American subtleness with athletes.

To these five coaches I dedicate this article.

Coaches or athletes with problems regarding this event may write me c/o Los Angeles Athletic Club, Los Angeles, Cal., or Pacific Coast Club, Long Beach, California.

THE SHOT PUT

Wilbur M. Thompson

This is not going to be a talk on The Correct Way To Put The Shot but merely some ideas from my experience and information absorbed from many weight coaches. I say this as I think there is a perfect form for every individual, but no one perfect form for any event. The pure mechanics are specific but the technique used varies greatly as it should, viewing each athlete as being different in physical and mental make-up. The only time the shot is put correctly is when a high degree of efficiency in the use of the body has been attained.

To take the event apart mechanically you have two physical objects, a sixteen pound ball and a two hundred pound athlete. They are alike in that both have inertia; that is they will remain stationary until some force is applied, but they are dissimilar in that the human body can move itself and apply a force to the shot.

Therefore the first thing to be done in putting the shot is to overcome the inertia of the body and the shot and start them moving in the direction the shot is to be thrown. The greater part of this action can be done merely by changing the position of the center of gravity of the body and using the resulting instability to initiate the action rather than expending energy through the body muscles. By the use of a fall out of the back of the circle the action is allowed to build up to a climax whereas a too vigorous drive from the back of the circle gives a tense jerky movement.

The start is important as the distance involved, (seven feet), and the small time interval, (one-half to three-quarters of a second), make it difficult to correct any movement once started.

Whatever the technique of starting the important things are:

(1) There must be consistency from throw to throw. This is necessary as it is desired to have a nerve pattern so established that after a certain sequence of events the put is started automatically. Just as a sprinter comes off the blocks on the sound of the gun so can the start of the put be triggered to occur at a definite time.

Consistency is obtained by repetition and the mastering of the ability to gradually shift the weight to the right foot so that there is no interrupting of the nerve pattern by sudden impulses from the muscles as the body sways from one position of unbalance to another. This uniformity is aided by simplification through the removal of extraneous movements. However, this does not refer to those movements which are part of a habit pattern by which the athlete obtains concentration and release from nervous tension or those that give continuity.

(2) Start with the idea of accumulating force and lifting in the center of the circle. Do not try to put the shot from the back of the circle by using excessive speed at the start.

(3) Move the body in the direction that the shot is going to be thrown. This sounds oversimplified but in watching shot putters you will see this fundamental thing violated many times. Along this same line are the ideas of keeping the shoulders and hips in line with the direction of throw. All of this is important because unless all the body forces applied to the shot coincide as to direction then the sum total of these forces will be diminished with resulting loss of distance.

(4) Lead with the left hip from the back of the circle. Do not lead with the left shoulder. This is necessary because of the second purpose of the start which is to get the body into the correct lifting position in the center of the circle. This position cannot be static. Unless the body position desired is present when the spikes hit the ground again after the hop there is a delay while the body attempts to assume a better position. This pause while the movement toward the toeboard continues results in everything happening too late in the sequence for proper execution. It is necessary to be able to lift immediately from the set position to further accelerate the shot.

The name of the event "putting the shot" is in itself misleading. Probably the British description "putting the weight" might be better as we think about throwing the shot, disregarding it as a weight, with the result that the use of the upper body is overemphasized.

It might be well to break the event into two parts from the set position to the finish,

1- lifting the shot
2- putting the shot,

and to make it more specific as to sequence and use of muscle groups,

1- first lifting the shot with the legs
2- then putting the shot with the upper body.

In other words the sequence of the event is from the foot to the hand, with the stronger, slower moving muscle groups giving a powerful gross movement to start the action and then progressing to the smaller, faster acting muscle groups giving a fast and fine movement at the finish.

The actual putting of the shot is done from the center of the circle and the idea is to start lifting with the legs, then the back and abdomen, shoulder girdle, and finally the muscles in the forearm with the shot being thrown up and out, never just out. All these forces are applied to the shot and it is this additive process that gives distance.

At the finish of the throw the right arm and shoulder drive out after the shot which takes the upper part of the body out over the toeboard as the right leg is brought up to the toeboard. Fouling will result unless a reverse is used. The left leg is extended to the rear to bring the center of gravity back inside the circle and into a stable position. THE REVERSE IS ONLY THE CONSEQUENCE OF THE THROW, NOT PART OF IT. A fair shot putter usually loses distance by reversing as it is part of his throw so it should be placed in the proper sequence. A good shot putter gains distance not be reversing but by following the shot out over the toeboard so far that it is necessary to reverse to stay in the circle.

As for training there is no better exercise to develope shot putters than putting the shot. But this means long periods of THROWING and THINKING! A workout should not consist of a repetition of errors but of a learning process. Many throws each day at half, two thirds, and three quarter speed are necessary to learn, correct, and smooth out the individual's technique. He should work constantly to improve his practice distances. However throwing for distance should not be a daily occurrence but only once or at most twice a week, throwing only as many times as is possible to get maximum distance and then slowing down the action and attempting to correct any errors that have shown up at full speed.

The average shot putter does not throw enough times a day for development and definitely does not throw enough repetitions of form to gain consistency. The importance of the legs is overlooked both as to the use in throwing and in their conditioning. Both speed and strength should be developed by jogging, wind sprints, and hurdling.

Weight lifting has tremendous advantages and disadvantages. Power is a necessity in putting the shot, strength alone is not. By power I mean a rate of doing work or (to use terms loosely for illustrative purposes) the rate of applying strength. The application of the same force to the shot but in a shorter period of time results in greater acceleration and distance. The ultimate is reached by increasing the strength and decreasing the length of time necessary to apply that force. This is the answer to lifting weights. As long as one's power is increased then a shotputter is being developed, but to do heavy static lifts and only emphasizing strength is wrong. The final test is whether the athlete is becoming a better shotputter or a better weight lifter.

To shotputters I say this: "You throw on Saturday as you have thrown on Monday, Tuesday, Wednesday, and Thursday so practice as you would like to throw on Saturday. Practice should be a learning process with the subject matter being the most efficient use of your speed, strength, conditioning, and mental attitude. Of these the last is the most important, since the ability to discipline yourself in practice and finally to be able to pin-point nervous energy in competition is the answer to being successful."

DASHES OR SPRINTING

Clyde Littlefield
Track Coach, University of Texas

Sprinting is the foundation of all forms of running. It might be said that learning how to run fast helps the athlete in all kinds of games. Probably the sprints are the most spectacular and popular track and field athletics in colleges and schools. There are many more men out for sprinting than any other branch of track.

It has been said that sprinters are born, not made. Most coaches believe this statement to be true. You can't make a race horse out of a draft horse. The fastest dogs are the grey-hound type, not the bulldog. No heavy man has ever been a great sprinter. It is true that with proper training an athlete can increase his speed. He may never be a champion, but he can improve. This is the reason men out for track, no matter what event they are practicing for, should take starts. The start is important in all running events. All track men should sprint some. Distance runners need it to give them a finish. Starts and short dashes are good developers for football, basketball, and baseball men. It will increase their speed. Speed always adds to the athlete's ability.

What type man is necessary for championship performance? In the last Olympic Games we had before us the types that cover nearly the sprinting range. The champion sprinters have come from the small, tall, medium, slender, and other type men. So we might say it is impossible to pick the best type for sprinting. Dr. Phillips of Amherst investigated the measurements of seventy-four fast runners. He found that they showed the combination of the following qualities:

1. A bony framework, somewhat taller than the average and lighter.
2. A short, broad head.
3. Narrow hips.
4. High instep and short feet.
5. Muscular system above the normal in size and strength.

He says that given these, equal training and equal nerve force, they will surpass all others in the rapidity of locomotion.

Simpson (of Ohio State) may be classed as a "digger" type runner; Tolan and Wycoff another type, and Metcalfe the floating type. Simpson runs fast all the way, puts everything into his running. Simpson is taller than Tolan and stoops a little. Tolan is short and small, runs smoothly, and seems to float. Metcalfe is tall, straight, smooth-looking, and weighs 185 pounds. Metcalfe is the "top runner" type. Probably the weather, track conditions, winds, and amount of training would cause all types to win at one time or the other.

A necessary harmony must exist between the leg movement and that of the body, which is controlled by arm action, to make good running. Many sprinters at times have outdone themselves by having the co-ordination of their muscular and nervous energy perfect. Sprinters must learn form or have it naturally. It is unwise to change over a man's natural action too much. The coach can help a man release his speed. It is well to smooth up and eliminate faults as far as possible, but try to build the natural mechanics of the man.

The natural runner has speed by reason of extraordinary leg power and better co-ordination. He has spring in his muscles.

Sprinters run well up on toes. Keep a natural body lean so that the end of the stride will be under the head or shoulders. The arms are bent and pushed forward with

a snap. The arm motion is from the shoulders. There should be a good backward swing of the arms but not too far behind the hips. The hands should swing to a point in front as high as the chest and forward. Try to keep the arms from going to the side. Beginners do not use their arms enough in sprinting. Don't let the legs swing too high in the rear. Hold the head in its natural position. It is important in all running to have what is called a "running angle". A "running angle" may be defined as a straight-line effect from the rear of heel to back of head. The sprinter should make it a daily and permanent habit of getting a running angle. This kind of running is nothing more than body balance. A coach can help a man in form running by standing to the side and watching the movements of the body, legs, and arms. It is best to keep the toes straight and the knees straight and a little in front of the body. Some coaches have men run lines to develop straight running.

It is necessary to get a well-explained idea of how to run. This chapter on sprinting will help in describing running.

As has been mentioned, the foundation of running is to learn how to relax. This action comes through the emphasizing of hip action. Runners should get a certain amount of "knee lift" and develop a flexible hip. The high knee and flexible hip exercises should help develop such necessary actions.

Somebody says to take deep breaths before getting on mark and after a fatiguing race. This has been found to ge good. It is well to have men breathe naturally. Each athlete should breathe without becoming self-conscious. Make it a habit.

The art of warming up is beneficial to all track men. Some warm up too little, others too much. The weather conditions and time of training season help to regulate the amount of warming up.

Coaches and athletes differ as to the "correct" way to warm up. Some men like to stretch their muscles by exercises; others like to run and stretch them. In general, the method below follows the accepted way to warm up:

Take a slow, easy, less-than-a-jog around the track. Then take a few easy, stretching exercises, being careful to stretch the muscles slowly and easily. Do not stretch too much at first. Doing the split exercise is good to stretch the muscles in the inside of the leg; as also is "riding the bicycle", and touching the ground back of the head while lying down. After a good stretching of the leg muscles, a few high kicks might help further stretching. But under no circumstances should a man attempt to so kick unless he is absolutely certain that he has stretched the muscles in his legs. Especially should he be careful in cold or damp weather. It might be a good rule to follow: that no such strenuous kicking be allowed, regardless of how much "warming up" the man has done. Other exercises might be used instead. There is too much danger of pulling a muscle in that sort of thing, especially if the man is inexperienced and thinks he is properly warmed up, when in reality he hasn't at all stretched the muscles in his legs.

A few wind sprints should follow this, taking the sprinting part easily, picking up slowly, and not pulling too hard. The main thing in warming up is not so much to "get a sweat up," as many athletes think, but to get the muscles of the body stretched and limbered up, and to get the heart to pumping blood faster through the body. Keep warm-up clothes on the body. The warm up should come fifteen to twenty minutes before event. Rest shortly before event.

All agree that the three points concerning which a sprinter must make a scientific study, if he expects to become a champion, are: (1) start, (2) stride, and (3) finish.

The crouching start is superior to the standing start. The start is made from holes or blocks. It is always well to see that the holes or blocks are firm and strong. Don't give them a chance to pull out and ruin a good race. It is an excellent plan to dig back of holes with a perpendicular wall. Leave space between knee and foot on mark to avoid wobble at start.

Most men start with their right foot back; there are few exceptions. If starting with left leg back, the form is the same, only reversing the movements. The hands should be behind the starting line, with the thumb and forefinger on a parallel line. The left foot should be approximately a foot back of the line--although this distance may vary. Place the right knee about on a line with the instep of the left foot; most men seem to like the right foot a little closer up than that, since it seems to give a little more security on the crouch. Place the right foot back in the hole.

At the "get set" signal, the body should be brought slowly forward to a point where the shoulders are just a little bit ahead of the hands. Keep the arms straight and outside of knees, the head straight or natural, and the eyes set about three to ten yards down the track. The back should be nearly a straight line. This is where the biggest fault is: in getting the back too high or too low. The weight of the body should be on the left foot and hands, the right firm on block or back of hole to shove off at the gun. Starters push off with both feet. It is good form to keep the right leg, from knee to hip, in a perpendicular position with the right knee somewhere about as high as ankle bone on left leg. Be relaxed, concentrate on the sound. Never think of the gun. Think only of getting started. At the start, bring the right leg up fast and sharply, throwing the right arm back (not too high) and the left straight out in front. This arm action is very important, since it is the main force that pulls the man out of his holes in a fast, smooth start. The first few steps should be shorter, hard-driving ones, with the arms moving vigorously and in rhythm. After eight or ten such steps, the runner will get into his stride gently and easily. Keep toes and legs straight down the track. Do not let the beginner take you off the mark. Do not learn how to try to beat the gun. You can learn in a moment how to beat the gun, but it takes time to start correctly. Be fully set and then mentally alert. Do not anticipate the start. It is proper to learn to come out of the holes with a natural stride. Some men can start better with their feet closer together. Remember the foundation of all starting is in taking a position so that one may come out fast and increase his speed without a break or pause, thus getting into the stride. A few sprinters start fast for three or four strides, then break a little and good starters pass them by on to their stride. Sprinters must learn how to run with a fast field as well as with the slow ones. If he fights himself and "ties up," he is lost. A good, correct start means a good ending. The more uniform the first strides, the better speed can be generated. Men develop sense of sound by practicing with the report of the pistol.

The starter has command of the start. He should see that all the men are ready and have a fair start. Many coaches have learned that the commands "stand on marks," "go to marks," "get set," before the gun is fired have proven successful.

After the start the sprinter gets into what is called the stride. The straight form of running must be maintained from the moment the mark is left behind. Many novice sprinters pull their muscles together without co-ordination. It does not get results. As the sprinter comes out of the holes he gradually comes up, going into the stride. He gets the momentum in the start. He should not be up to his normal stride under at least ten yards. At the same time he should keep his legs under him.

In the stride it is well to remember the value of a quick "pick-up" or fast leg action. In this fast leg action get the downward movement of foot or foreleg at the end of the forward action of the knee. This method will help keep body angle (if performed vigorously) and, at the same time, will add additional forward momentum. The

contestant should be careful that this type of running does not storten his stride. Do not swing legs to the side or lift them too high or behind the body. A good relaxed hip motion with legs will help in maintaining the stride.

Somewhere near the finish the runner must learn how to increase his speed. This means that most good performers have experienced in their races a place to put forth a quick burst of speed. In other words, he has conserved his pace to give a finish. Any finish action that tends to force the upper body forward without undue loss of balance is desirable. A vigorous arm and leg action, with a throw of the shoulder at the tape, is desirable. The jump finish is always used by a small percentage of sprinters but is not desirable. A few men throw their arms up and forward but not to any advantage. It is always best to continue through the finish mark several yards. Do not stop quickly. Judges may pick finishers if they continue running. The time and distance to start the finish varies with individuals. Practice will help decide when to start the finish.

It is a good practice to learn how to finish correctly at the tape, not before you reach the marker, not too many yards beyond the judges' stands. The finish must be well-timed.

A WEEK'S TRAINING

Monday - Warm-up exercises; form running; a few starts; a few wind sprints. As in sprint relays, pass baton a few times - light work.

Tuesday - Warm up; listen to gun a few times; run through distance at four-fifths speed with a finish, and practice at the tape. Work a little on curve running if race is run on curve.

Wednesday - Hardest work of any day of the week; warm up; a few starts with two or three short dashes - 30 to 40 yards; run through 120 yards with pick-up at finish; slower at start. If a 220-yard man run but 120 yards at a comfortable speed and sprint for finish.

Thursday - Run a slow 300 yards or 150 yards at four-fifths speed; pass baton.

Friday - Meeting; warm up; or complete rest.

Saturday - Competition, under meet conditions.

Never overwork your sprinters. Do not have trials in competition except on Saturday. Sometimes two light work-out days before a meet is best. It varies with individuals.

A 220-yard sprinter should usually run the first part of the race well within himself. He should start fast, and run hard, without straining all the way. Run on the inside lane on the curves. It is best to run from behind on curves.

In early season training, especial attention should be given to form, not too much for speed. On warm days, take the speed exercises and, on cold days, more building up and endurance work. Always have confidence in ability but not overconfidence. Know that you have a fight on your hands, but have faith in your ability to feel that you can meet the test. Know the rules for sprinting.

RELAY RACES

The national relay games have done more to popularize track and field athletics in the United States than any other events or methods

The system of conducting the relay carnivals and creating intense rivalry among competing teams, and arousing interest among spectators in seeing exciting relay teams compete has caused the genoral public to attend the contests. In many instances there have been from 30,000 to 40,000 people present to see such relays at the Pennsylvania and Drake carnivals.

The relay games started in 1895 at Pennsylvania.

At the Pennsylvania relays there have been as high as 524 schools and colleges and 3,000 contestants on the entry lists of the 100 events.

Follwoing the example of Pennsylvania, John L. Griffith in 1909 started the Drake relays at Des Moines, Iowa.

The relays at Des Moines have grown to be as large as those held at Philadelphia.

The relays have been successful wherever tried and the idea of holding them has spread to all parts of the United States.

Relay games have been held at Kansas, Ohio State, South Dakota, Texas, Rice, Illinois (indoors), Washington (Seattle), Georgia Tech, California, Michigan State (indoors), Butler University (indoors) and many other places.

Many of the relay carnivals have had among their contestants the outstanding performers in the country. Several have had novelty events, such as the football relay at Drake.

The relay races have created interest and enthusiasm among boys and men in track and field athletics. In the writer's opinion, the relays are going to continue to be popular to the track athlete and to the general public.

The most common relays are one mile (4 x 440 yards), one-half mile (4 x 220 yards) and the quarter mile (4 x 110 yards). These relays are used in many dual and conference meets. The mile relay, used in all sections of the country, is probably the outstanding relay event in a majority of the meets. The other relays are as follows:

Two mile relay (4 x 880 yards).
Four-mile relay (4 x 1 mile).
Sprint medley (440 yards, 220, 220, 880).
Distance medley (440 yards, 880, 3/4 mile, 1 mile).

In the shuttle relays, each man runs 100 yards, back and forth. Two men of each team are stationed at each end of the 100 yards. Numbers 1 and 3 at one end and Numbers 2 and 4 at the other end. Number 1 runs 100 yards and takes baton to Number 2. Number 2 back to Number 3, Number 3 forward to Number 4, and Number 4 back to the starting point for the finish. Sometimes the runners merely touch each other rather than to carry the baton.

The high hurdle shuttle relay race has become interesting at many of the games. It is run in the same manner as above described, except the high hurdles are used and

the distance covered in one lap is 120 yards instead of 100 yards. Each term has two flights of hurdles. With the two flights, the setters have a chance to put up knocked down hurdles.

Men should train for the relays in the same manner as they train for individual events. If an athlete is training for the one-mile relay, he should train as if he were to enter the quarter mile race. The difference comes in learning how to pass the baton.

It is important for the coach to have his men placed correctly and in the order in which they are going to run in the relay.

Many relay teams, especially the one-mile teams, follow the plan of starting their third-best man first, their fourth-best man second, their second-best man third, and finish with their best man.

The usual way has been to start with the second-best man first, the fourth-best man second, the third-best man third, and the best man last.

The plans for running the relays vary.

Getting the pole is an advantage in the mile relay. Therefore, it might be well to begin with a fast starter. The man who starts should be strong and not easily tripped. If a man gets too nervous waiting for the baton, it probably is better to start that man first.

Another important factor in deciding the order in which to run men is to know whether they run best from front or behind. Some men may not be able to judge their pace when running in the rear of others; or, because of being behind, not being fighters, they may lose their confidence. It is important to place these men where they will be able to do their very best. Because of the excitement of the race, some men run better as it progresses.

The team should analyze the opposition. The coach or men should decide whether the best tactics are to run the opposing team "off their feet" or not. Some teams are composed of men who do not know much or anything about their pace and they often run themselves down in the first part of the race. In the longer relays, this is often true.

The form in passing the baton in the sprint relays is very important. In the mile relay, a great advantage may be gained by good passes.

The baton is 11.81 inches (295 millimeters) long and in circumference is 4.724 inches (109 millimeters). The weight must not be less than 50 grams.

Each team is required to carry a baton and each contestant must pass it to the next man up within a 20-yard zone.

The form used in the distance relays differs only slightly from that followed in the sprint relays. The principle involved is the same. The idea is to make the exchange of the baton from one member of a team to the next man when both runners are as near full speed as possible. This results in the receiver getting a "flying start". In making a good exchange, there should be daylight between the man making the delivery and the one accepting the baton. The receiver should start from the back end of the

touch-off zone. This enables him to use the remainder of the distance to make sure of the pass and thus gain momentum for the start. A plausible advantage is gained by passing the baton properly. Many teams lose time in making the exchange.

As the runner approaches, the receiver should start running slowly, being careful to time his speed with that of the runner. This applies to the one-mile or longer relays. If the runner has a fast finish, make the exchange in the front part of the "touch-off" zone. If he has a slow finish, make the exchange in the back part of the "touch-off" zone.

The incoming runner carries the baton in his left hand. It is held at one end, with the back of the hand up. The runner places the baton in the receiver's hand with a downward motion of the arm. The receiver holds his right arm and hand extended backward with palm up and thumb to his left to make the exchange, with the runner who approaches running to the right of the receiver. When he accepts the baton, he immediately makes the exchange to his left hand and at the same time starts off fast as in a regular race.

Do not loaf, if ahead. Gain distance, if behind, for the first 30 or 40 yards.

When the receiver has accepted the baton, he should race off down the track in a straight line, and the runner with whom he has made the exchange, should always stay in the lane until after all apponents have passed by to avoid fouling and subsequent disqualifications. When the exchange is being made,always run in a straight course.

In many of the meets, the teams are required to alternate in the use of lanes when receiving the batons. After he rounds the last curve, it is well for the incoming runner to pursue a straight course toward the proper exchange lane. This method will lessen the chance for a break in the stride and may eliminate many serious injuries in the touch-off zones.

The sprint relay men use a somewhat different method in passing the baton. The method they generally resort to follows:

The runner carries the baton in the same manner as above explained. The delivery is made with an upward swing of the arm and hand. The reciever places himself in the back part of the "touch-off" zone. Prior to the exchange, the receiver marks off a line or places a white handkerchief back of and beyond the end of the back line about six or seven strides. When the runner approaches, and immediately upon the runner's arrival at this newly-made marker, the receiver starts ahead at full speed. He glances backwards for the first three strides to align himself with the runner and then looks straight ahead as he presses forward. When he has taken about four strides, after his start, the receiver extends his right arm and hand to the rear. With the palm of the hand down, the back of the hand up, the fingers extended out and the thumb to his left, he has taken a position as if grabbing for something with the open hand. His elbow is bent a little as arm is extended. The exchange is made in the front part of the zone, while both runners are going at full speed. Through practice with his teammate, the receiver will learn to time himself with reference to the place mark behind the "touch-off" zone.

Men who run on relay teams must practice together. If the exchange of the baton is made too soon, then move the mark back. If the pass is made beyond the front end of the zone, move the mark up closer. Practice continually on handling the baton. Develop team play.

In the shorter relays the responsibility for making a good exchange should be placed chiefly on the one making the delivery. The receiver takes the baton in his right hand.

In the early part of the season, practice with short relays. The runner should keep near the inside of the lane in rounding curves, when relays are run in lanes.

The receiver of the baton should always be in a low, running position as he starts on his run from the back of the zone.

We find that there are several other methods followed in passing the baton. All are good if the right principle of the pass is mastered, that is, full speed for both men when the exchange is made.

STARTING

Coach Bob Strehle
Pomona College

This treatise will not attempt to tell you how to start track events, but rather will be an explanation of how I start runners. It is divided into four part, namely: 1, the rules; 2, the equipment; and 3, the method.

The rules are simple. Briefly the statement is as follows: "The starter shall not fire the gun until all competitors are 'set' and 'motionless', and not until two seconds have elapsed between the command 'get-set' and the firing of the gun." Also, no part of the competitor's body shall touch the starting line or the ground in front of the starting line, although it is permissible for the competitor to lean out over the starting line.

The equipment consists of a gun, a whistle, shells and a bright colored shirt or cap or sleeve so as to make the starter's arm readily visible to the timers. I prefer a 38 caliber gun, the shells of which give off a bright flash when fired. Present day ammunition is fair, but specially loaded shells which give off a very bright flash are preferable.

My sequence of giving the starting commands closely follow the rule book. They are as follows: 1. One minute before the official starting time, I blow a few short blasts with my whistle and give the command, "Will all runners please stand up to your marks."

2. Immediately following this instructions are given. For example, I might say, "This is the first heat of the 100 yard dash. Three men will be qualified for the finals. Is there anyone who is not ready to go?" If the race is beyond 220 yards and not staggered at the start, I make the following statement, "This is the final of the 440 yard run. You may break for the pole at any time after the gun is fired, provided that you have a seven foot clearance and that you do not interfere with the forward progress of any other runner in any way whatsoever."

3. I then turn toward the finish and blow one long blast on my whistle and wait until I receive two answering blasts from the head timer.

4. I then face the runners and say, "All right fellows (or gentlemen) here we go." This is followed by the command, "Get on your marks." I use a matter of fact statement with falling inflection of voice. Usually, I caution the runners regarding the starting line by the statement, "Please have your hands back of the starting line--not on it." I then walk slowly to a position at the "pole" side of the track, if there is room to stand there, and about 12 yards out in front of the starting line.

5. When all competitors are motionless, I first raise the gun, being careful to keep the gun arm straight.

6. The command "Get-set" is given in an even tone of voice, spacing the words "get" and "set" slightly and without a rising inflection of the voice. When all competitors are "set" and "motionless" I fire the gun.

If any movement occurs on the part of any runner as or before I fire the gun I immediately give the command "Stand up". If no runner has touched the starting line or the ground in front of the starting line before this, then no warning is given. If, however, anyone does touch the starting line or the ground in front of the starting line before I can give the command, then I have no alternative but to give a warning.

It is done in the following manner. First, I call all runners up to their marks again and standing directly in front of the offender or offenders I say, "The man in this lane has one warning. If he breaks again I have no alternative but to disqualify him."

If after I have fired the gun, I note that there was advance movement on the part of any compeitor, then I fire a recall. In this case no warning is given.

TRACK PROMOTION

Tom Deckard
Track Coach, Drake University

The presentation of this talk on track promotion is going to be difficult in view of the fact that most of you gentlemen are already acquainted with the subject track promotion. The rest of you are inhabitants of California where track has certainly received some real attention and is thriving very nicely.

There are several things to do that will stimulate interest in track, some of of which are for the competitors and others for the spectators. The success of the promotion depends upon the energy of the track coach and his enthusiasm toward promotion.

Some high schools have stimulated interest in track participation by inviting a lot of boys out and equipping all of them with good and proper equipment. They also have offered competition for varied levels of ability by having A, B, and C, squads in meets. This, of course, takes time and is not done over night. Their success has then come from a lot of boys competing with a few watching from the sidelines. This type of enlarged program then gains momentum in that all the boys who participate have parents generating interest in track. Thus, over a period of years, you gain followers for your sport.

One sure-fire method of getting your sport promoted is to instill in a few boys the desire for each to excel in his event. When one or two eventually excel, the other boys, by their own comparison, will realize their possibilities and extend greater effort in their events. This is best exemplified by my own coach, Billy Hayes. After he was fortunate enough to get a few boys giving good performances in distance events, the others followed. The followers then did well, and the tradition was established.

Special events for the younger boys seem to have a far-reaching impression on the youngsters. Johnny Gill, the track coach at Austin High School in Chicago, has developed a good stunt to stimulate track. He has developed, through the sponsorship of one of the service men's clubs, what they call the Junior Olympics. They have a track meet for the youngsters that imitates the real Olympic games, with all the ceremony, awards, and festivities. He tells me that since these games have been put on the past four years he has had a number of good boys come out for track there who participated in the Junior Olympics.

Your own Pasadena had a city-wide championship this spring which found lots of boys in track events. The final meet being held in the Coliseum made a favorable impression on the boys. One parent told me that her son was really thrilled. He said, "Mother, we even got to run out of the chute."

Running on a big stadium and on a good track brings to mind a practice we coaches should follow for promoting interest in track; that is an endeavor to have our track, track equipment, and track implements in the best shape possible for each workout. In addition to track and equipment in good shape, we should also have our day's and week's program of coaching well planned. A well-organized program that keeps all candidates busy and improving is very important. It is reasonable to believe that if we have exactness and energy toward having things ready to go, this will carry over to the boys in time.

Track can also be improved upon from the standpoint of meet promotion. Our own Drake Relays committees have tried various methods of promotion to stimulate interest. You probably are acquainted with the promotion schemes of my predecessors who all

have been promotion minded. In the past few years, we have done a couple of other things which should help our Relays. One was a post card showing an action shot of Relays. We put the cards in the hands of all the competitors (approximately 2500) at the Relays and all the hotels. We hope to gain some notoriety from these cards being sent to various parts of the country by these boys.

This year we interested the women's page staff writers of the Register and Tribune in devoting some space to the Relays. They used the idea of what was appropriate to wear at Relay time (April 29), and in the future, more ideas can be developed.

We cannot over-emphasize the importance of sending materials to the press. Regardless of meet size, we should get as much pertinent information to the press as possible: News stories, pictures, and items of human interest. A lot of us are guilty in not supplying the host school with information on our boys for publicity purposes. The information we send out to host schools helps both schools to promote the meet and track in general. The papers won't use it all, but you will be surprised at the amount they do use.

The present trend in local radio station development must not be overlooked. The new stations in towns are eager for sport news, and they must receive the same information that the newspapers get.

Drake University invested in the production of a colored sound film of the Relays this year. We took over 3,000 feet of film and have edited it to a twenty-two minute film showing the track events, parade, and all the activities that take place. We hope to show this film to service clubs, high school, track, YMCA, and boy scout groups. (Since the NCAA meeting, the film has been completed and is one of the best. We have mailed out cards to the organizations mentioned. The response has been much better than expected, and it is estimated that the Relay film will have at least 400 bookings this school year. It requires four copies to keep up on this mailing.)

Finally, the greatest tool in track promotion is complete and precise meet organization. The success of the Drake Relays has been largely due to a definite and precise time schedule for each event. This is accomplished by having competent and schooled officials, and having the competitors, coaches, and officials well informed. Preparing properly for a meet takes long house of work, but it is time well spend if you care to get the job done for track.

THE DECATHLON

Ward Haylett
Track Coach, Kansas State College

To me the decathlon has at least three separate and distinct phases; namely, the mental, the physical, and the technical. I will take these up in the order named, but really they over-lap to such an extent they may run together in some of their aspects.

Mentally a decathlon competitor needs poise, courage, the ability to concentrate. He should have the ability to throw off worry. Actually in the decathlon a competitor has no past or future, the present is all that makes any difference. In other words, he must not worry too much if he has fallen down a little in some event which is finished and he must not count too much on making everything up by some brilliant performance in an event yet to come. He must concentrate on the event in progress and do his very best performance in that particular event.

Another important mental aspect is self-confidence. Of course, any athlete needs this but to the man in the decathlon it is paramount.

One thing about the decathlon is that there are really two phases of competition in one contest. The man is playing "medal" play against par in that the scoring set up is a challenge all the time and he is also playing "match" play against his actual competitors. This makes it all the more essential that the man be a real all around competitor.

Much more could be said about the mental side, but I think these suggestions at least will cover some of the main points, so I will now go to some of the important physical aspects.

Naturally a man who hopes to excel in the decathlon must have a high degree of coordination. It is impossible to acquire the necessary skills in the various events without this. Also he must have a great deal of stamina and, even more important, recuperative power. The fact that in general a younger person has faster recuperative power may be a partial explanation of why a great many of the more important decathlon men of the present day are younger than the men who used to excel in this event. Best example, of course, being Mathias, the champion.

Naturally the candidate must go through a long and careful period of preparation and conditioning. It is not the purpose of this short article to say anything about the skills involved in performing the ten events which make up the decathlon. They are the same as for the same events in open competition, and the only points which need to be taken up separately about them will be taken up in the discussion of the technical aspects.

In general we expect a man who hopes to excel in this event to be of much more than average size, the champions who come to mind when I think of the decathlon are Thorpe, Bausch, Mathias, and men of that type. Of course, there have been some good decathlon men of average size or under, but in general they have not scored as high as the larger men. Morris was no giant, but he wasn't undersized either. It just gets back to the old saying with a very few possible exceptions, "a good big man is better than a good little man". There have, however, been some good little men such as Clark, Coffman, and others.

Getting into some of the technical phases of the event comes next and here I am sure that all of you will think of many things which I will not cover, but my object is only to bring up enough things to start you to thinking about the event and you can help me out by suggesting others.

To me one of the most important things in training and coaching a decathlon man is to try to get him to improve on his weak events. If left alone the average man will work on the thing he likes best, and neglect some of the things in which he does not excel. It is possible to add many points by bringing up some of the mediocre events to a reasonable standard.

Another thing to watch, if possible, is to develop to as high a point as possible in some of the events in which a relatively small amount of improvement will pay off in a higher proportion of points.

Another important point to remember is that in the shot, discuss, javelin, and broad jump only three trials are allowed, since this is true it is doubly important that no stone be left unturned to insure a top performance. The broad jumper must be absolutely sure of his step for the take-off to avoid fouling his good jumps and perhaps fouling out of the event altogether. The same is true of the javelin approach, and of course it is also possible to foul out in the shot and discus, although not quite as likely.

The limit of three trials also makes it more necessary than ever that the athlete be properly warmed up and ready for his best competitive effort as early as possible.

In the high jump and pole vault there are several points to remember. Of course, the approach in these events is just as important as in the broad jump and should never be neglected. It never pays to waste energy in the decathlon, so do not be careless on early trials. Make each height as soon as possible. Do not let the contestant waste too much energy by starting at marks well below his ability, but it is never wise to wait too long to get a scoring mark on the books. It has happened that a contestant paused too long and then failed at the height at which he elected to start and would lose out entirely in one of these events, and of course that is fatal.

There is only one thing I want to mention in regard to the form for the various events and that is this; the form used should be fundamentally sound. If it isn't there is too much chance that under pressure something will go wrong and a poor mark will result. Once in a while some good results will be obtained by some freakish innovation, but it is too risky to rely on anything but sound fundamentals. Another thing that the decathlon man should realize is that he can't be changing his form every once in a while trying to copy some specialist in a certain event who has developed an individual form.

In a general way I have covered the field events which make up the decathlon and there are some rather important things left to say about the running events. Since the start is important in the dash, the hurdles, and the 400 meters it should be worked on and perfected to as high a degree as possible. Naturally the dash is an all out race all the way and should be practiced in that way. Often the field is not too closely matched and a man must learn to get his own maximum effort. This is even more true in the 400 meters and a man must learn to pace his own race to get his own best mark. Of course, if he is fortunate enough to get into a closely matched heat in these races it is just that much better.

In the hurdles a sound form is essential as is also, a good start. And, of course, of prime importance is the necessity to guard against falls since these are absolutely ruinous.

When the 1500 meters comes up the scores of the various contestants usually show about what they have to do in this event in order to win or place as high as is within their reach. And this is about the way the 1500 meters is usually run. But actually, if a contestant is interested in making his best possible score in this event regardless of its relation to the others, he is going to have to do a lot of preparatory work in conditioning and pace work. Since this really is the supreme test of the ten events one should be prepared to go all out as many times an important gain can be made by some athlete who is really in condition.

In conclusion I want to stress the satisfaction a competitor can get from the decatholm. The winner of the decathlon in the Olympic Games is generally recognized as the world's best athlete. The national champion can truly be said to be his country's best athletic performer and for those who are below championship class there is a lot of pleasure and satisfaction in competing, because it is possible with the scoring system in use to evaluate their performance against those of any athlete in the world and all the true athlete wants and thrives on is competition.

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REPORT OF BUSINESS MEETING

At the conclusion of the question and answer period following Ward Haylett's talk on the Decathlon, there was a short business meeting attended by members of the Association.

The meeting was called to order under the Chairmanship of President Hanner at 11:50 a.m.

President Hanner: As chairman of the Membership Committee I should like to report that our Membership campaign, starting early in December, 1948, has netted us 63 actives and 85 associates. To refresh your memory, actives are college coaches and associates are high school coaches or others interested in the sport.

At this time I should like to ask for a report from the Treasurer.

Lauren P. Brown (Secretary-Treasurer): As most of you already know, this Association operates on a fiscal year ending June 30. Consequently, any report I have to give is presented in the nature of an interim financial report, subject to whatever revision is necessary later on to make it a true report of the income and expenses for the fiscal year 1949-50.

As of June 16, income amounted to $447.50 for the year 1948-49. $337.00 of this income was the result of membership dues at the rate of $2.00 each for actives and $1.00 each for associates. The balance of the income, $77.50, was derived through the sale of back issues of clinic reports at a cost of $1.00 per copy to members and $1.50 to non-members.

Expenses for the same period amounted to $407.60. A break-down of these expenses shows the largest item of expense to be $269.09 for publishing approximately 300 copies of the clinic report. Additional items of $46.97 went toward postage; $46.81 for expenses connected with the Winter ('49) meeting at San Francisco and the present meeting here in Los Angeles; $37.08 for stationery and membership cards; $4.25 for subscriptions; $3.40 for bookkeeping supplies.

The year-end balance stands at $59.73.

Incidental to this report, I should like to remark that this Association is attempting to operate on an income which is too low for normal current expenses. Before the war, printing costs were very much less than they are today. Unless I am misinformed, one or two issues of our clinic reports before the war were subsidized by a very good friend of Track and Field Athletics. The last issue before the war was printed by the association at an extremely low rate in Palo Alto. The present Secretary-Treasurer tried printing the 1947, report last year. This proved to be extremely expensive, costing in excess of $325.00. Quotes on the 1948 report exceeded that amount by over a hundred dollars. Even though mostly done by mimeograph, this year's publication, as of this date, already has cost nearly $270.00. This extreme cost, combined with the low ebb of the treasury, has been the reason it has been impossible this year to provide adequate means for transcribing the present clinic session. This lack of adequate reporting is a considerable loss to the Association, because the transcription of these meetings has proved to be far more successful than any written report submitted by speakers can hope to be, the main reason being that the questions from the floor inspire on-the-spot answers which seldom are remembered but which always are of extreme value to users of the clinic reports.

I tell you all of this because I feel that you should understand why the Association will have to depend this year upon written reports by its speakers. The whole thing boils down to the fact that our membership dues are too low to support even the simple program we feel is necessary to carry on.

President Hanner: You've heard the report of the treasurer. Are there any questions? If there are no questions a motion for its acceptance is in order. It has been moved by John Oelkers and seconded by Carl Olson that a unanimous vote of approval be cast for the report of the Secretary. Remarks? There being no further discussion, I will ask for a show of hands on the motion. Motion carried.

I believe Ward Haylett has something to tell the members about our membership dues situation. Mr. Haylett.

Mr. Haylett commented on the condition of the treasury and pointed out that publication costs had increased drastically, and, combined with the costs of operating the office of Secretary-Treasurer these make the financial burden one unbearable under the present low membership dues. He pointed out that none of our companion associations, football coaches, basketball coaches, or baseball coaches associations have dues less than $5.00. It was his recommendation that our Association, if it intends to stay in business and conduct its affairs on a plane consistent with the professional job of coaching, increase the dues tc $5.00 for active members and $2.00 for associate members, effective July 1, 1949.

It was moved by Neal Smith that Mr. Haylett's recommendation to increase the membership fee be accepted by the group and a unanimous ballot cast in favor of the vote. This motion was seconded by Norris Dean.

President Hanner: You have all heard the motion. Is there any comment? There being no discussion on the motion, we will ask for a vote. The vote is favorable so we instruct the Secretary to record the motion as approved by unanimous ballot.

At this time we will have a report from the Nominations Committee. The following members comprise the Nominations Committee:

Emmett Brunson
Carl Olson
Jack Weiershauser
Karl Schlademan, Chairman

Karl Schlademan: The Nominations Committee would like to submit for approval of the group the following slate of officers and recommends that a unanimous ballot be cast for these officers as submitted:

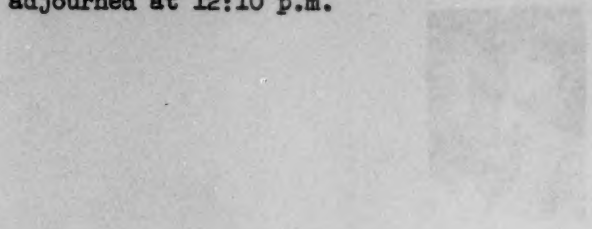
President: Clyde Littlefield (Texas)
Vice President: Frank Hill (Northwestern)
Secretary-Treasurer: M. E. "Bill" Easton (Kansas)
Advisory Committee: Tom Botts (Missouri)
Guy Sundt (Wisconsin)

It was moved by Harry Adams and seconded by Norris Dean that the recommendation of the Nominations Committee be accepted and that a unanimous ballot be cast by the association for the slate of officers as presented.

President Hanner: Gentlemen, you have all heard the motion. Is there any discussion? There being no comment on the motion we will ask for a vote. The vote is favorable so we instruct the Secretary to record the motion as approved by unanimous ballot and the officers elected as recommended by the Nominations Committee.

It was moved by Clyde Littlefield that a vote of thanks be given retiring Secretary-Treasurer Lauren P. Brown for his long service to the NCTCA. The motion was seconded by Carl Olson and was passed.

There being no further new business, upon the passage of the proper motion the meeting was adjourned at 12:10 p.m.



The Membership Committee

J. Flint Hanner
Chairman

Edgar C. Barker

Percy Beard

Norris Dean

Emmett E. Brunson

C. S. "Hec" Edmundson

Ward H. Haylett

Carl Olson

Karl Schlademan

Fred B. Tootell

Ed Weir

The Publication Committee

George L. Rider

J. Kenneth Doherty
Chairman

Lauren P. Brown